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MAR 28 1953

textile bulletin

MARCH • 1953

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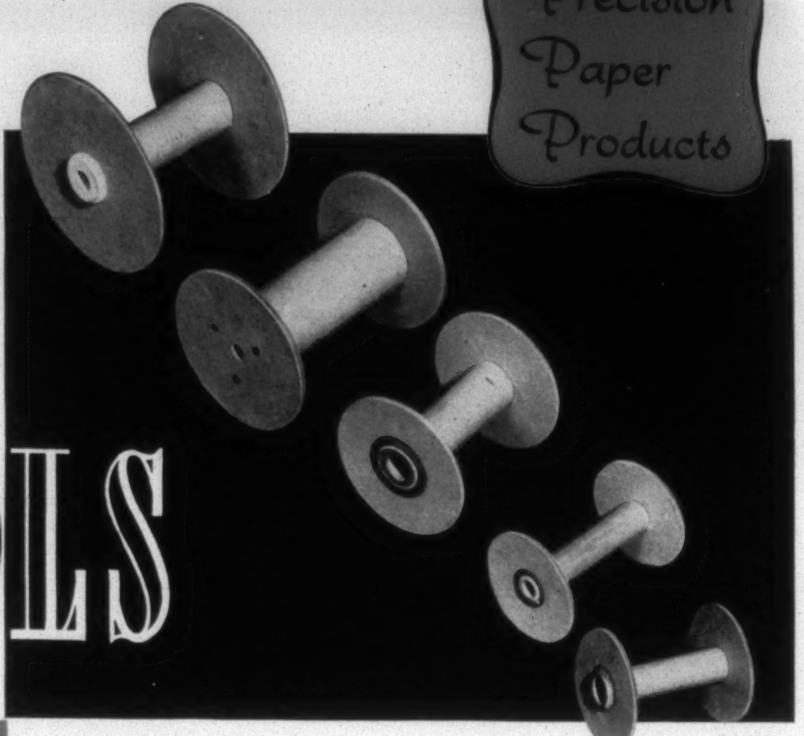

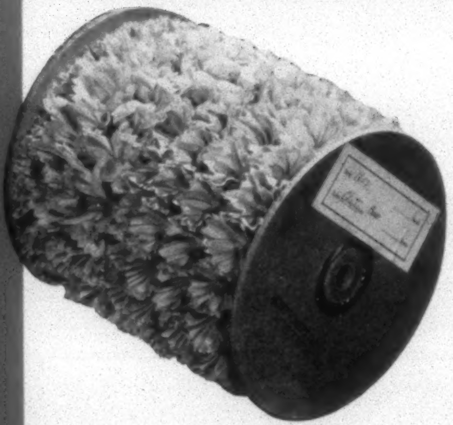

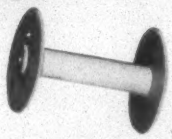

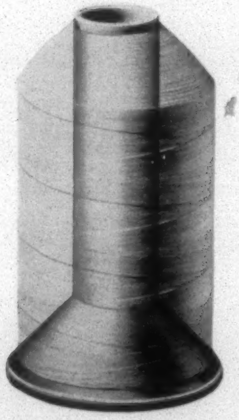

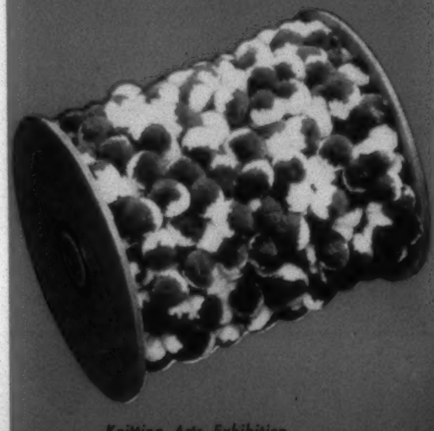

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Booths 373 and 374

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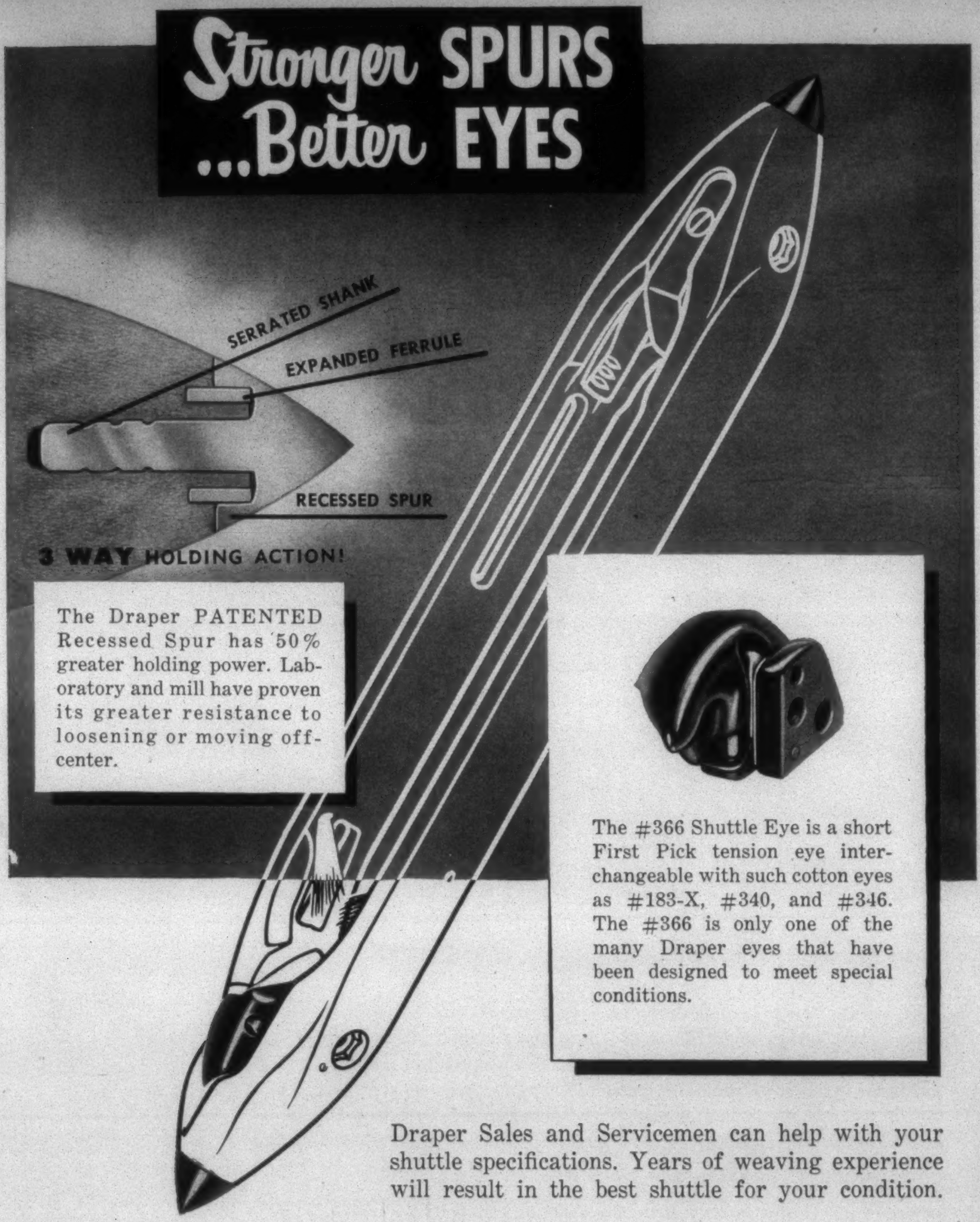

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what's **corn** doing at the north pole?

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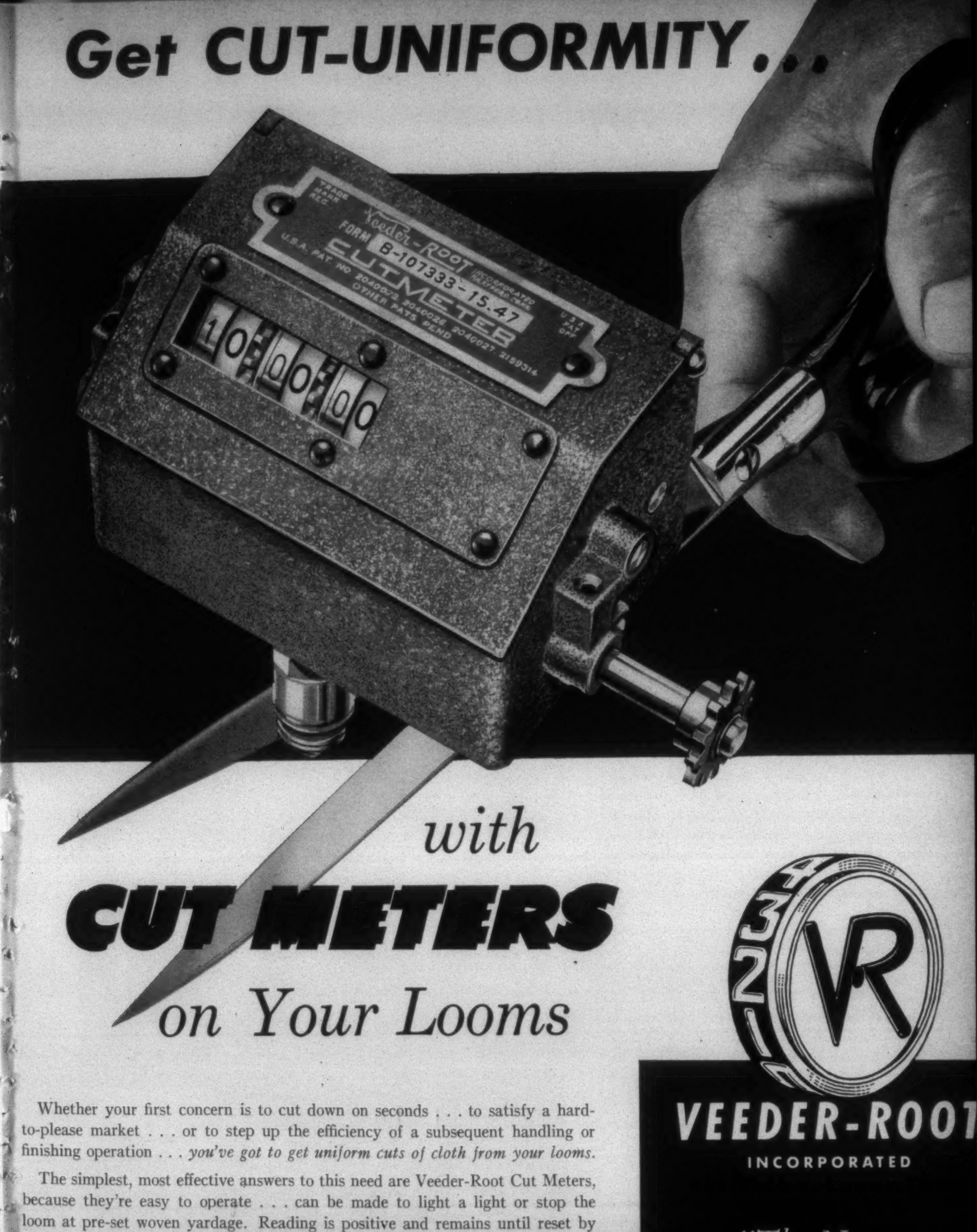
Get CUT-UNIFORMITY . . .



with
CUT METERS
on Your Looms

Whether your first concern is to cut down on seconds . . . to satisfy a hard-to-please market . . . or to step up the efficiency of a subsequent handling or finishing operation . . . *you've got to get uniform cuts of cloth from your looms.*

The simplest, most effective answers to this need are Veeder-Root Cut Meters, because they're easy to operate . . . can be made to light a light or stop the loom at pre-set woven yardage. Reading is positive and remains until reset by weaver or cut boy. What's more, Veeder-Root Cut Meters are dependable, and have earned the acceptance of leading mills.

Now, whether your particular uniformity problems are on looms, frames, twisters or preparatory equipment, you can count on *"The Name That Counts"* to give you the help of factory-trained Veeder-Root engineers. Just write the nearest Veeder-Root office.

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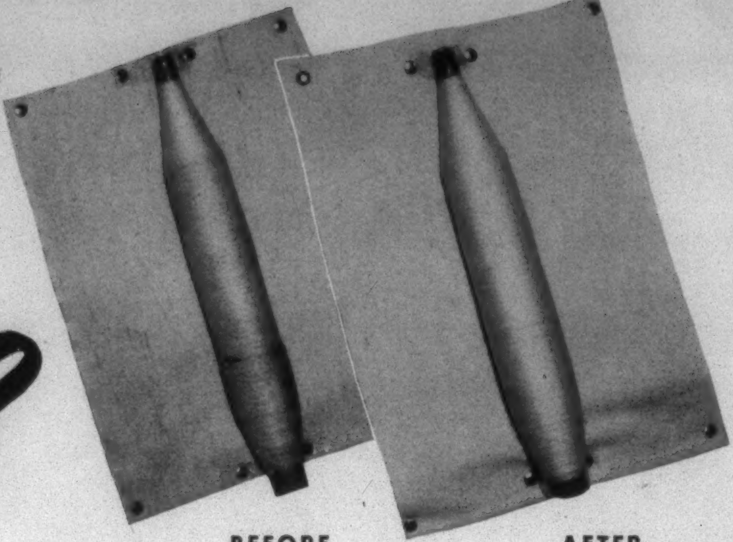
Smug about Smog?



BEFORE

Samples of yarn and cloth prior to installing an AMCO electrostatic air cleaning system. Repeated washings were unsuccessful in removing smudge from cloth.

AFTER

Following the installation of an Amco central station with electrostatic filters, these results were obtained. Freedom from carbon and dirt in air spelled the big difference!

YOU CAN'T AFFORD TO BE . . .

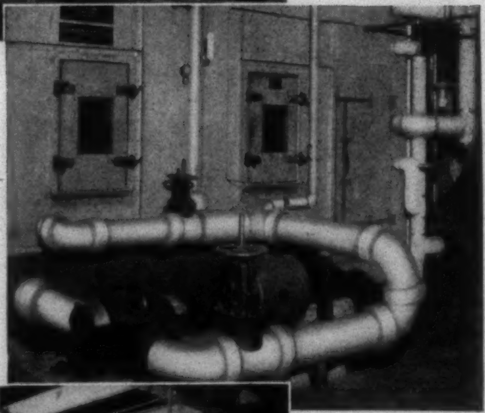
HERE'S PROOF . . .

"Don't put up with dirty air, if you want to put up superior yarns" . . . recommends York Knitting Mills, Toronto, Canada, where filtering and washing air *pays off* . . . in better quality yarns! And the "Before and After" pictures reproduced above give graphic support to that advice.

An Amco central station air conditioning system delivers *only* air that's custom tailored . . . to the proper degree of temperature; to the exact relative humidity desired; and most important . . . air just as fresh and clean as a breeze off the ocean! No wonder results are uniformly outstanding . . . regain maintained; yarn counts kept more even; static electricity eliminated; closer machine adjustments and higher speeds maintained; less broken fibers, dust and fly; cleaner yarns and cloth; stronger, smoother and more uniform fabrics; greater worker comfort and efficiency — to mention a few.

Amco has *both* duct and ductless systems — and can install humidification, evaporative cooling or central station air conditioning, alone or in combination. You can rely on Amco for impartial advice on the installation best suited to your needs. Call an Amco engineer.

Plenum chamber showing recirculating air dampers with damper motors at left; lint screens in foreground; electrostatic filter in background.



Centrifugal pump and piping which operates air washer in background.

Spinning room — showing air supply duct with atomizers over each air outlet mounted on air and water pipes.

AMCO

AIR CONDITIONING SYSTEMS

Humidification • Evaporative Cooling • Central Station

AMERICAN MOISTENING COMPANY
AFFILIATED WITH GRINNELL COMPANY, INC.
PROVIDENCE, R. I.
ATLANTA • BOSTON • CAMDEN • CHARLOTTE

Rayon Reports

Prepared Monthly by American Viscose Corporation, New York, N. Y. March, 1953

Avisco Chemicals Give Textile Mills Solutions To Static Problems

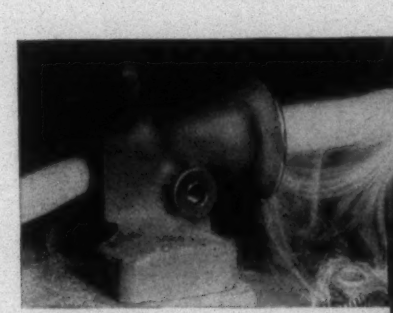
Major static problems in textile processing—particularly in dyed fibers, yarns and fabrics—are being met with the help of Avisco textile chemicals. They are easily applied in the final rinse after dyeing, eliminating later handling operations.

Besides controlling static, Avisco textile chemicals provide excellent fiber lubrication and cohesion in carding, gilling, drafting and combing.

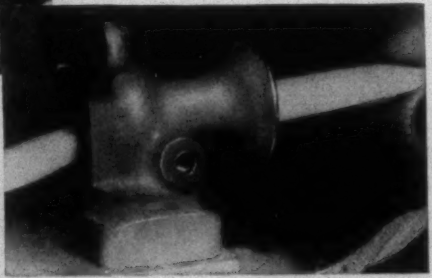
They are non-ionic, and completely dispersible in water. They are highly stable to acids, salts, and mild alkalies, as well as compatible with dye liquors, sizes, and resins used in finishing. In addition, Avisco treating agents are permanently stable in storage, do not volatilize during drying, and do not affect shades or light and wash fastness.

Other Avisco textile chemicals also in demand for their outstanding qualities are a rayon stabilizer, a permanent rayon finish, and a non-ionic synthetic detergent.

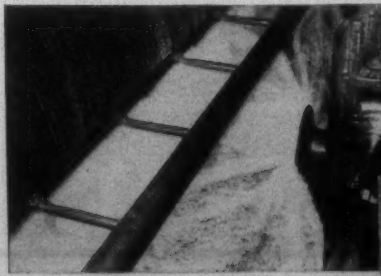
Representatives of Avisco's Textile Research Department are working closely with mills to apply static-control chemicals, as well as chemicals developed for other textile problems. They will be glad to assist you. Write us about your specific needs.



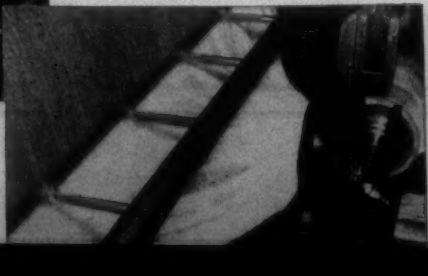
Left, drafting untreated synthetic fibers.



Right, same fibers treated with Avisco Chemicals. There is practically no fly. Down time is reduced, uniformity of later processing assured.



Left, untreated fiber going through worsted card.



Right, the same operation after treatment with Avisco textile chemicals. Exceptionally effective static control is achieved.

Avisco Textile Chemicals were developed in conjunction with and are manufactured by Atlas Powder Company, Wilmington, Delaware.

MAKE USE OF *Avisco*®
4-PLY SERVICE

To encourage continued improvement in rayon fabrics, American Viscose Corporation conducts research and offers technical service in these fields:

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2 FABRIC DESIGN
3 FABRIC PRODUCTION
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# of METALS for INDUSTRY!

The fabrication of machinery and equipment for Southern Industries has been a Sims Specialty for over twenty years. Today, the demand for equipment of this type find Sims' engineers and craftsmen able to produce this equipment, custom tailored to the job . . . built to fit the requirements of physical space and local conditions.

A competent field engineer will be glad to show you how to reduce costs materially—write or wire SIMS today!

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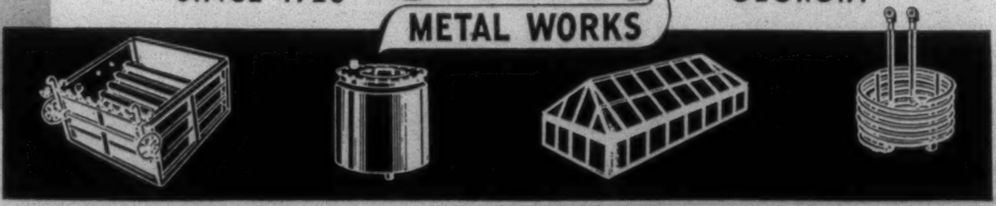

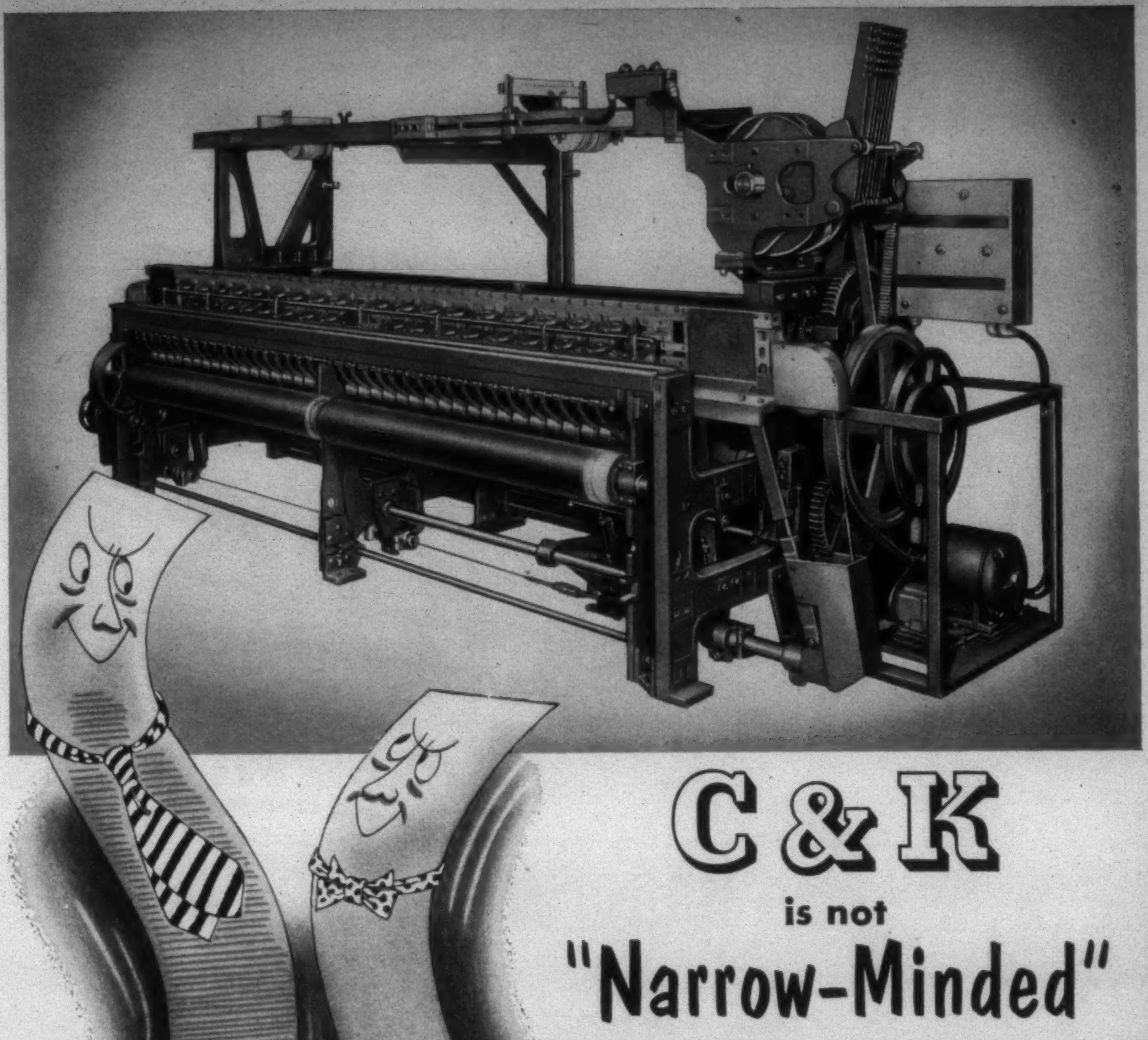

C & K

is not

"Narrow-Minded"

about NARROW-FABRIC Looms

...we make them both—long AND short!

Yes, in this modern C&K design, the distance between loomsides can be varied to accommodate any number of shuttles and spacings, as required by individual mills.

And that's only the beginning of the list of newsworthy features of this important new loom:

• High speed with low maintenance • Rigidity of all-metal frame • One-piece magnesium laybeam • No clutch ... loom crankshaft direct-connected to motor by timing belt • Wide range of weaving speeds by changing pulley on motor • Electric braking by plugging switch • Cam, head or dobby harness motion • And many other new C&K features.

Remember: This new C&K Narrow-Fabric Loom can be built with any number of shuttles and spaces ... either single-deck circular, double-deck circular, single-deck straight, double-deck straight, straight-shuttle 2-bank cross-shot, or single-deck 2-bank straight drop shuttle. *Never before in the history of narrow-fabric weaving has there been a loom of such versatility as this one.* So whatever your requirements for narrow fabrics ... tapes, webbing, elastic, ribbon, or what have *you?* ... *this is your loom! Get in touch with C&K today.*

This invisible trademark stands back of the trademarks of the World's Finest Woven Fabrics

Crompton & Knowles LOOM WORKS

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when the *service* is as important as the product

Service is an important value in modern enterprise. Just for example: How could television have become such a major factor in our economy — if every set owner had to do his own tinkering, instead of calling the service man?

As for card clothing, quality is indispensable. But quality alone isn't enough — unless the product is available quickly and conveniently, unless you're sure to get the best type of card clothing for your purpose, unless efficient installation service is near at hand, and you can be sure of technical assistance when you need it.

Ashworth Service is as good as Ashworth Card Clothing — and that's the best. Our 3 factories, 6 repair shops and 7 distributing points — all strategically located in major textile areas — assure adequate supply, prompt deliveries, convenient repair service.

Our practical card men are always on call — ready to give you technical service, survey your cards and recommend necessary repairs. Write to our nearest plant for full details for Ashworth Service.

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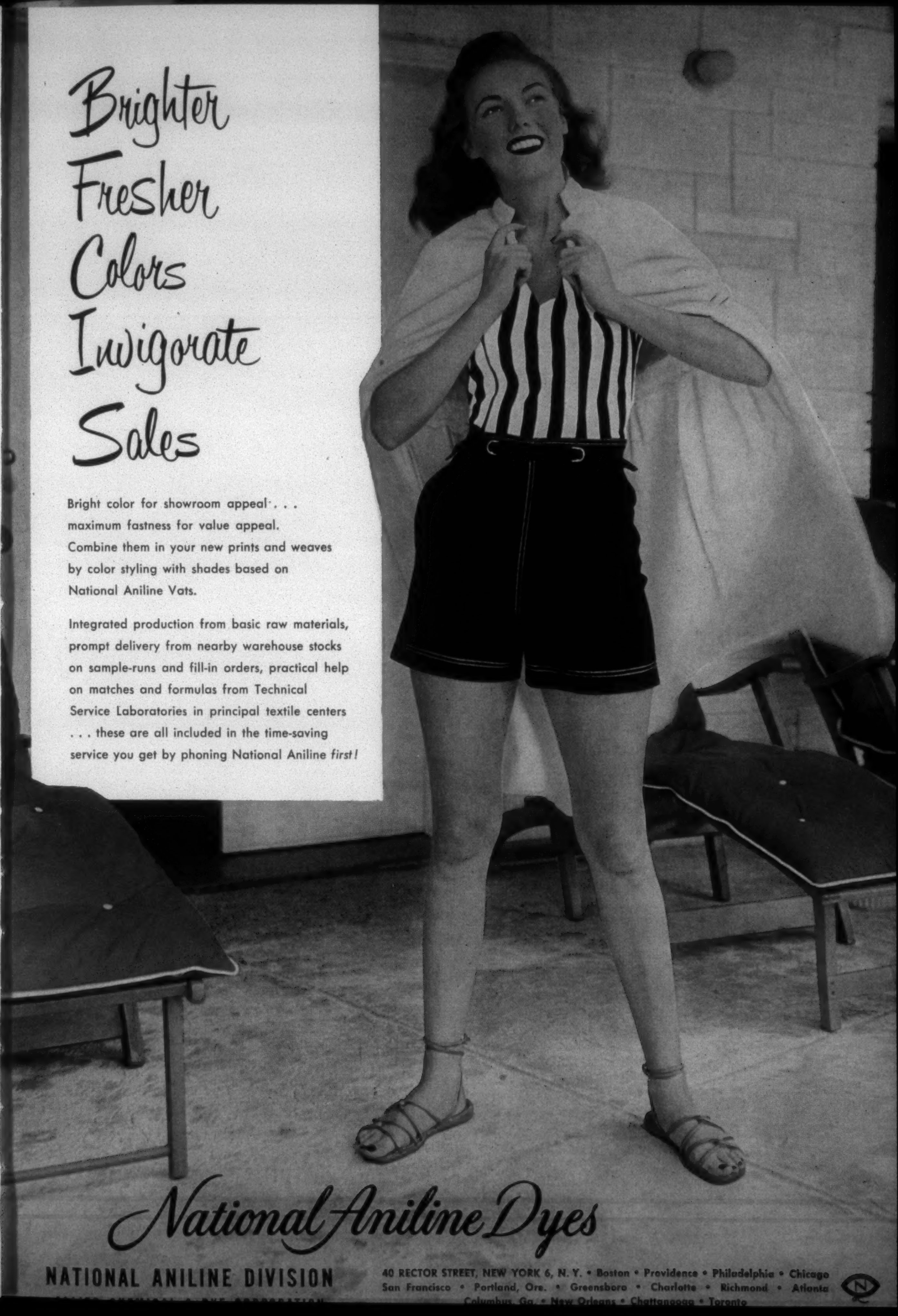
Fall River*†‡ Worcester‡ Philadelphia*†‡ Atlanta†‡
Greenville*†‡ Charlotte†‡ Dallas†‡ (Textile Supply Co.)
Factory* Repair Shop† Distributing Point‡

Ashworth CARD CLOTHING

3 FACTORIES **6** REPAIR SHOPS **7** DISTRIBUTING POINTS



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Bright color for showroom appeal . . . maximum fastness for value appeal. Combine them in your new prints and weaves by color styling with shades based on National Aniline Vats.

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National Aniline Dyes

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TA

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really
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heavy
and g

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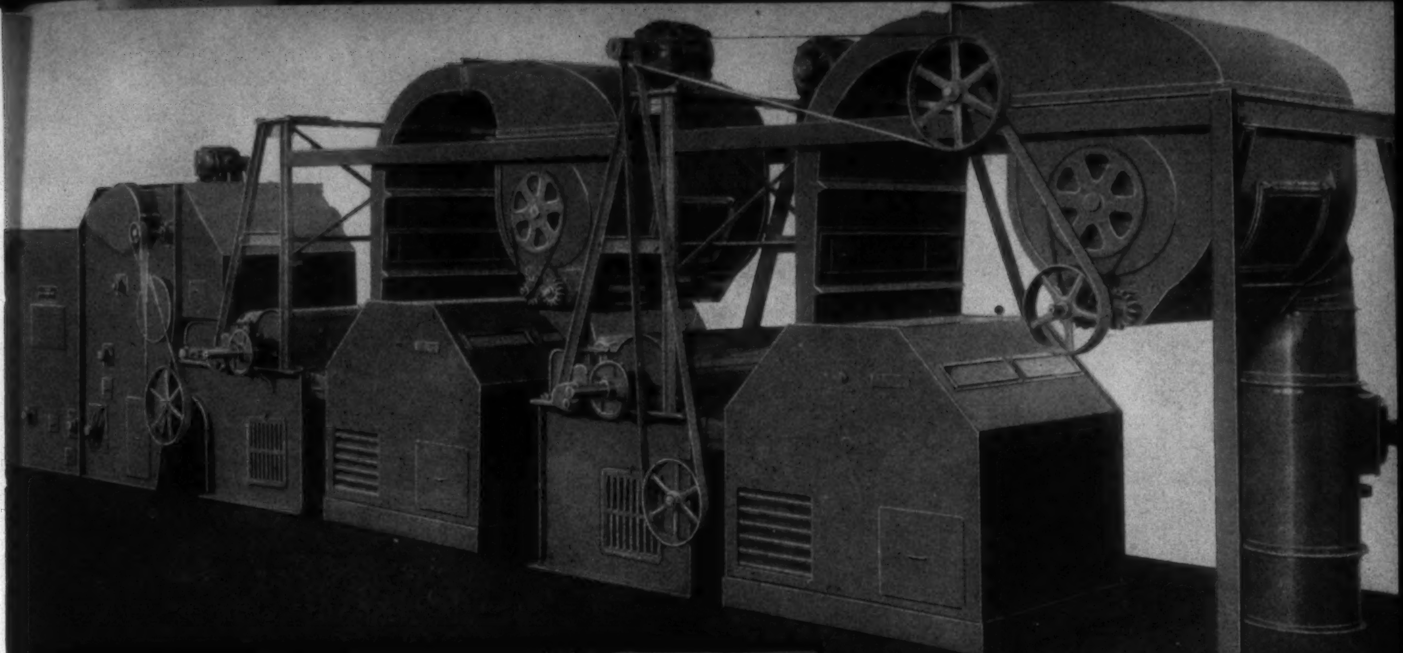
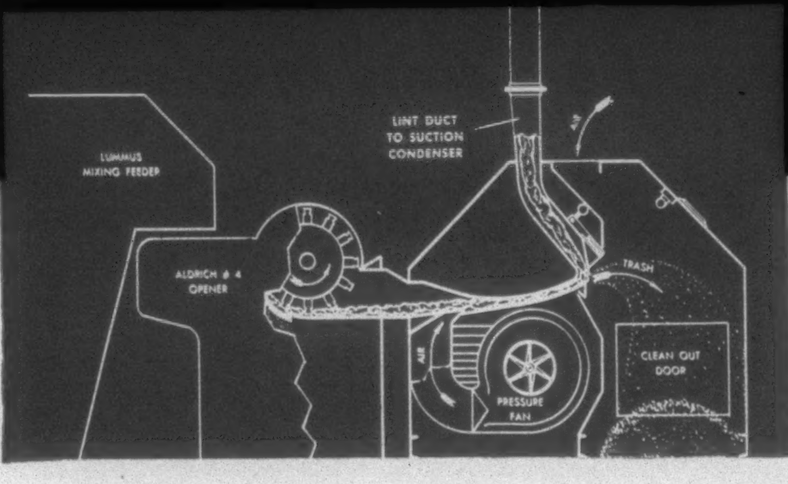




Super-Jet takes out trash by air. No saws . . . only enough beating to open the cotton. No damage to fibre, or breaking up of trash. Lint delivered cleaned and thoroughly opened . . . with no curling, no stringing, no increase in nep-count.

WITHOUT LOSS OF SPINNABLE FIBRE

TANDEM SUPER-JET MAKES COTTON CLEAN

Tandem Super-Jet cleaning system as shown here, not only does not take out good lint, but can be set to remove any desired type of trash. Super-Jet is now in operation in a long list of mills, whose cotton ranges from waste mix and good ordinary on up to strict middling. In these mills Super-Jet has proven itself as the first really new idea in lint cleaning in the last 75 years.

Super-Jet cannot damage fibre because it has no moving parts, and does its work with two air-currents. It eliminates the heavy cost in high-priced cotton of fibres damaged by cleaning, and good, spinnable lint thrown out with the motes.

Super-Jet takes out motes and neps; bark, shale, stems, grass and other loose trash without breaking them up into motey material or pepper trash. Used in Tandem with the opening equipment shown, the cleaning system turns out cotton ready for delivery direct to the pickers and so dust-free that you will notice that your card and spinning rooms are cleaner after installation of Tandem Super-Jet.

We have been given permission to invite you to visit mills with Super-Jet installations, running the same type of cotton you use...and will be glad to arrange such visits at your convenience.

ALDRICH-LUMMUS CLEANING SYSTEM

Made by

LUMMUS COTTON GIN CO.
Columbus, Ga.
and
ALDRICH MACHINE WORKS
Greenwood, S. C.

Sold and Installed by

AldricH MachinE
Greenwood WorkS South Carolina

DAYCO COTS with amazing new discovery, IBROCOL, *successfully combat eyebrowing!*

Thanks to a new synthetic rubber blend containing the amazing ingredient, Ibrocol, Dayton Rubber research has been able to develop an entirely new and different Dayco Cot—EW-465—that successfully combats eyebrowing. Actual mill tests run on many frames prove this, and also that it drafts better yarn, requires fewer cleanings of the clearer boards, and runs longer between buffings than any other cot.

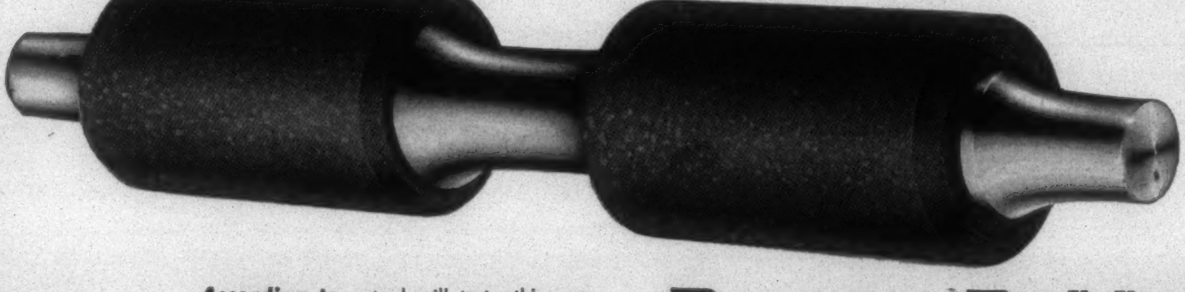
The addition of Ibrocol is the chief reason for this remarkable performance. Its chemical and mechanical action gives the cot a surface that maintains just the right coefficient of friction to remove only the short staple fibers and transfer them well back under the clearer board. Long staple fibers that could build up into eyebrows are left in the yarn. Hence there is less waste as well as less eyebrowing.

There's another big advantage too. The Ibrocol in the new Dayco Cot retards slicking and glazing. Thus the surface retains its coefficient of friction longer than any other synthetic cot. This means fewer buffings, greater savings.

In addition to its special features, the new EW-465 Dayco Cot also gives you all the other famous Dayco Cot advantages. They're unaffected by moisture or changes in temperature. Neither do they groove, pit, or develop flat spots. As a result of these many features, Daycos give you fewer ends down, less lap ups, less eyebrowing, better drafting on all types of frames using either natural or synthetic fibers.

Whether you want to overcome eyebrowing or any other cot problem, you'll find that Dayco Cots are the right answer to help you secure the highest quality production at the lowest possible cost. For the whole story, get in touch with your Dayco Representative today.

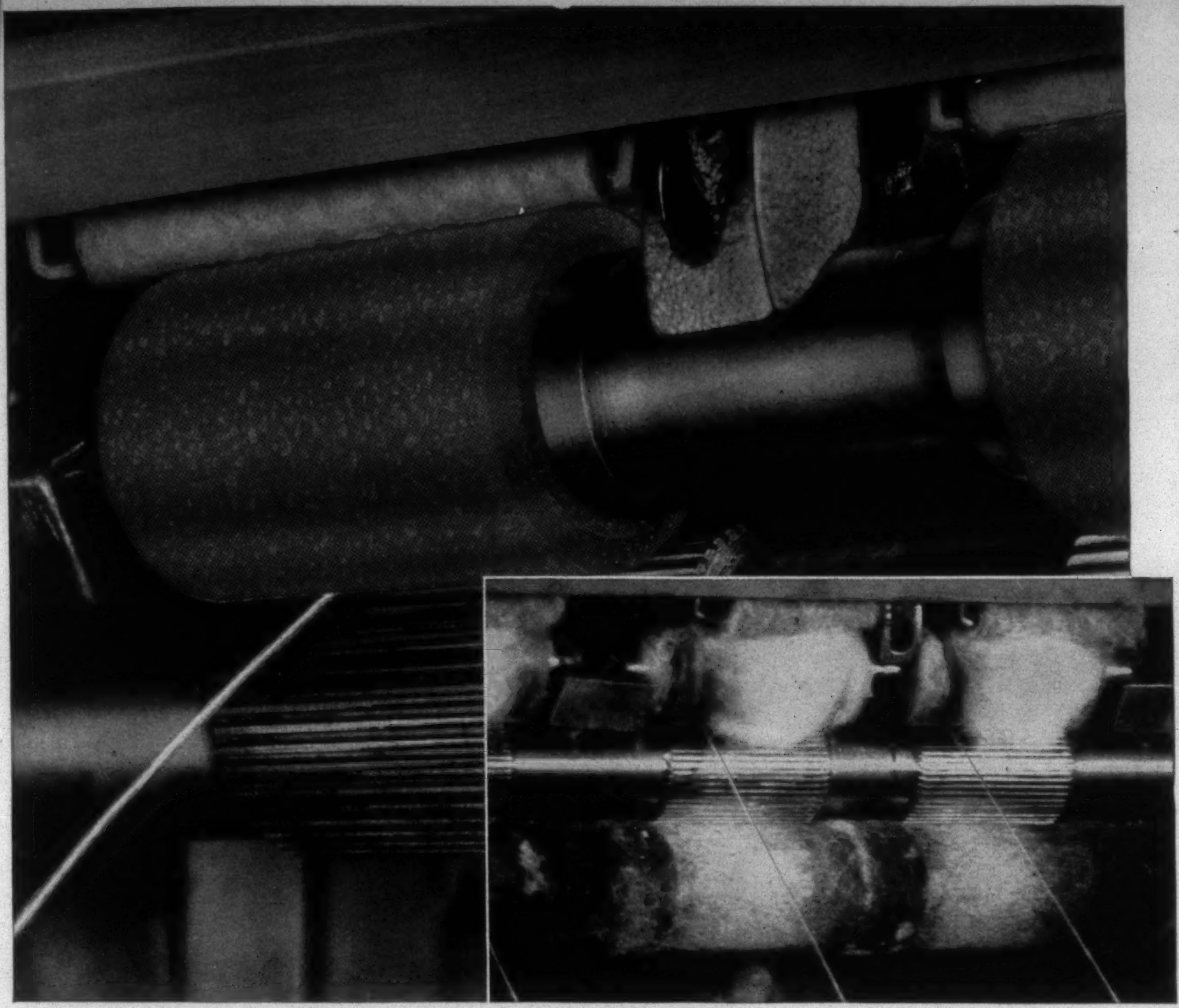
© D. R. 1953

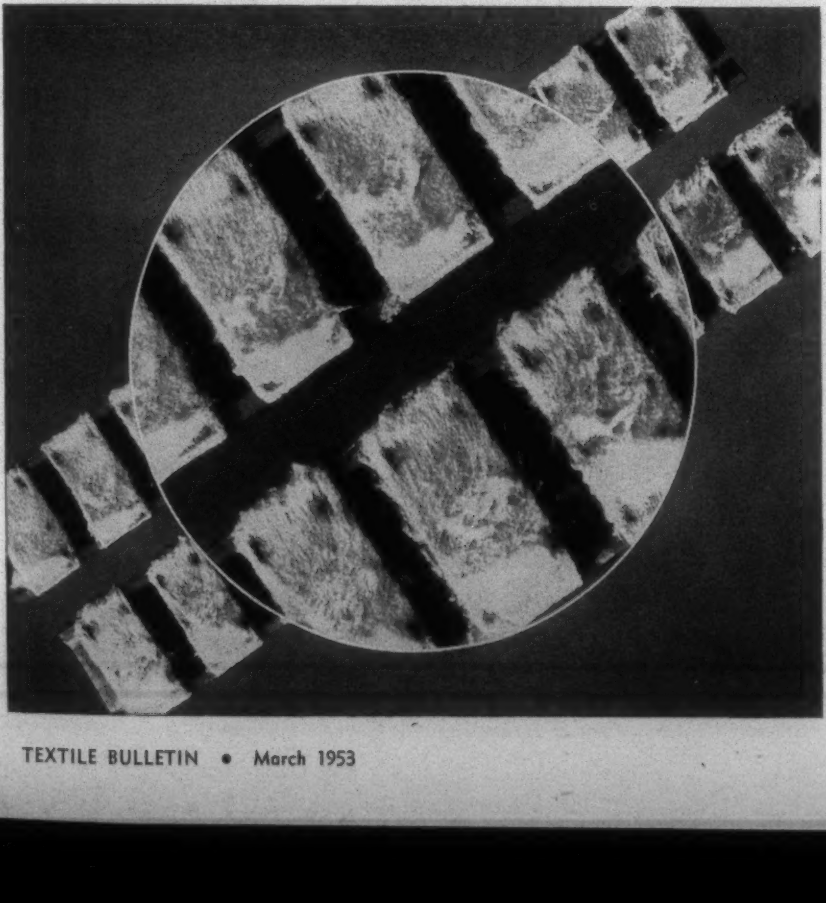


According to actual mill tests, this new Dayco Cot with IBROCOL successfully combats eyebrowing, drafts better yarn, and runs longer between buffings.

Dayton Rubber
Since 1905
Textile Products for Better Spinning and Weaving

DAYTON RUBBER CO., TEXTILE DIVISION, WOODSIDE BUILDING, GREENVILLE, S. C.

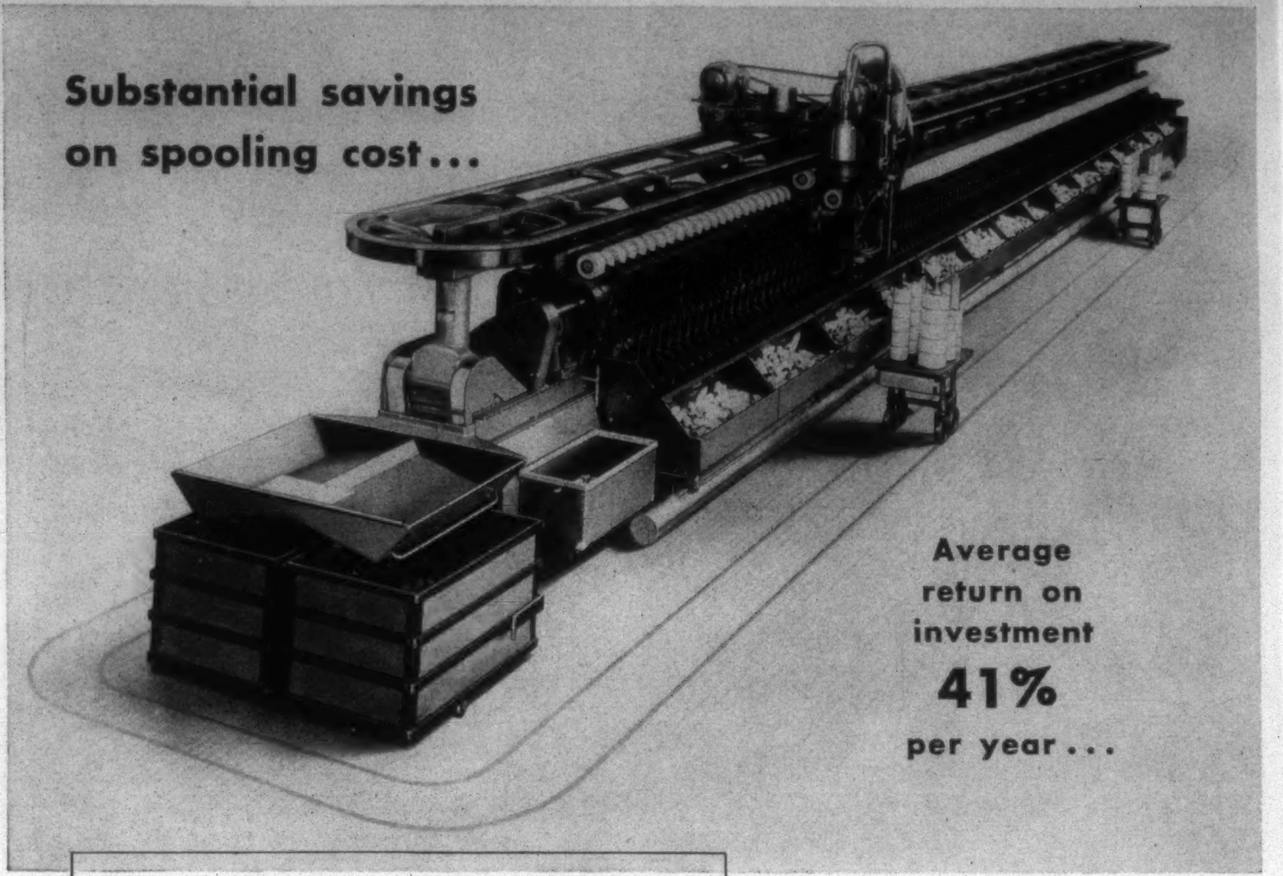




Compare the non-eyebrowing performance of these new EW-465 Dayco Cots shown above in the large illustration, with the condition of another make, shown in the inset. You immediately see why mills who have tried the new Dayco Cots are so enthusiastic. An accurate check in a great many mills over a period up to one year showed that the new Dayco EW-465 Cot did not eyebrow while other cots did.

◀

The clearer board on the top came from a stand of new EW-465 Dayco Cots. These cots were run on the frame exactly the same length of time as the bottom clearer board taken from an adjacent stand of different make cots. Note the difference in the clearer waste. This is because the Dayco's remove only short staple fibres, packing them well back under the clearer board away from possible pickup by the end.


Substantial savings on spooling cost...
Average return on investment 41% per year...

Barber-Colman

AUTOMATIC SPOOLER

SPOOLERS AND WARPERS IN USE ABROAD

COUNTRY	SPOOLERS	WARPERS
Argentina	5	4
Columbia	8	8
England	41	28
France	48	21
Germany	38	22
Holland	16	13
India	12	10
Italy	15	7
Japan	10	9
Mexico	14	9
Sweden	10	7
Eight other countries	27	20
TOTAL	244	158

You can see from the above figure that the machine, which cuts spooling costs very materially, can pay for itself in about two and a half years. There are other benefits, too. By use of this machine, and its associated Super-Speed Warper, practically all spooler kinks are eliminated, weaver's knots are obtained, and the elasticity of the yarn is retained — all of which are of great benefit in the weaving. Also, loom stops, in a nine-year test, were shown to decrease by 25.44% and the average increase in weave room production was 1.25%. Since their introduction 30 years ago, Barber-Colman machines have earned very wide acceptance in the American textile industry . . . now their use (see list) is rapidly spreading into other textile-manufacturing countries.

AUTOMATIC SPOOLERS • SUPER-SPEED WARPERS • WARP TYING MACHINES • WARP DRAWING MACHINES

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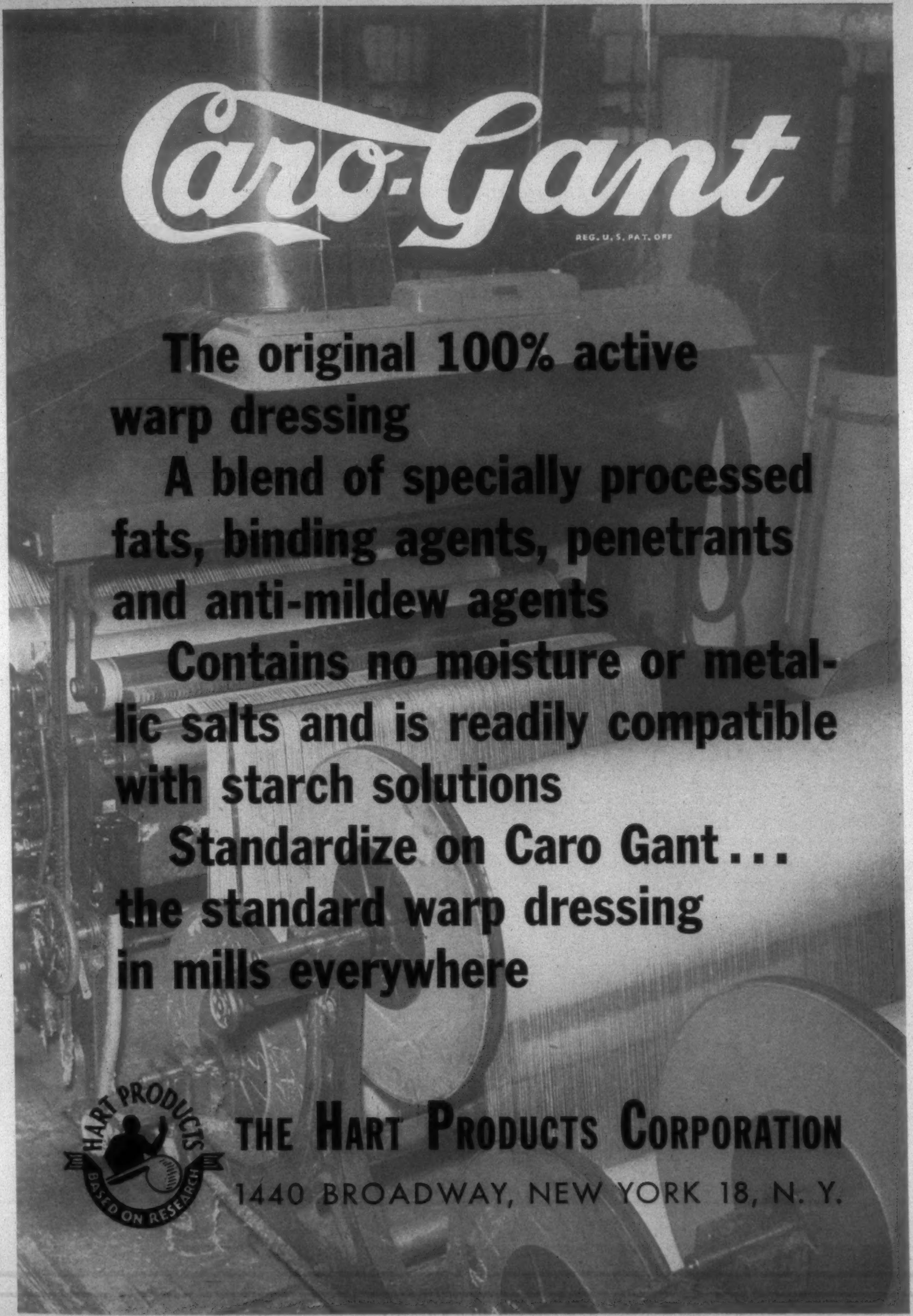

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The original 100% active warp dressing

A blend of specially processed fats, binding agents, penetrants and anti-mildew agents

Contains no moisture or metallic salts and is readily compatible with starch solutions

Standardize on Caro Gant . . . the standard warp dressing in mills everywhere

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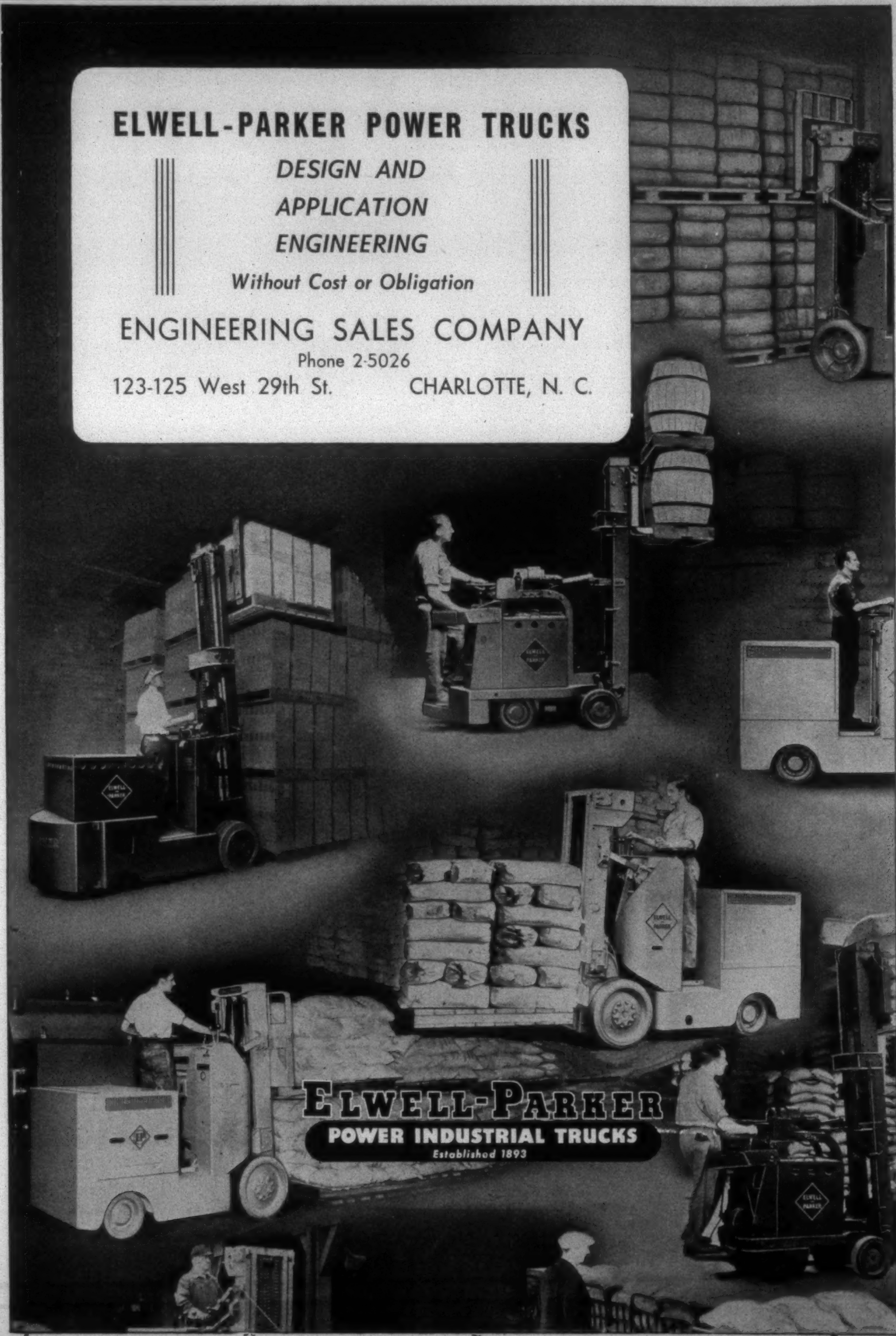

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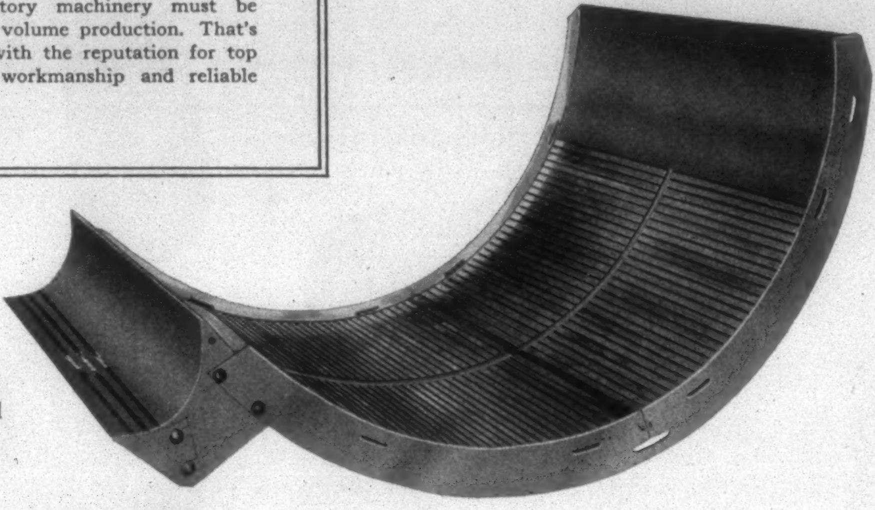

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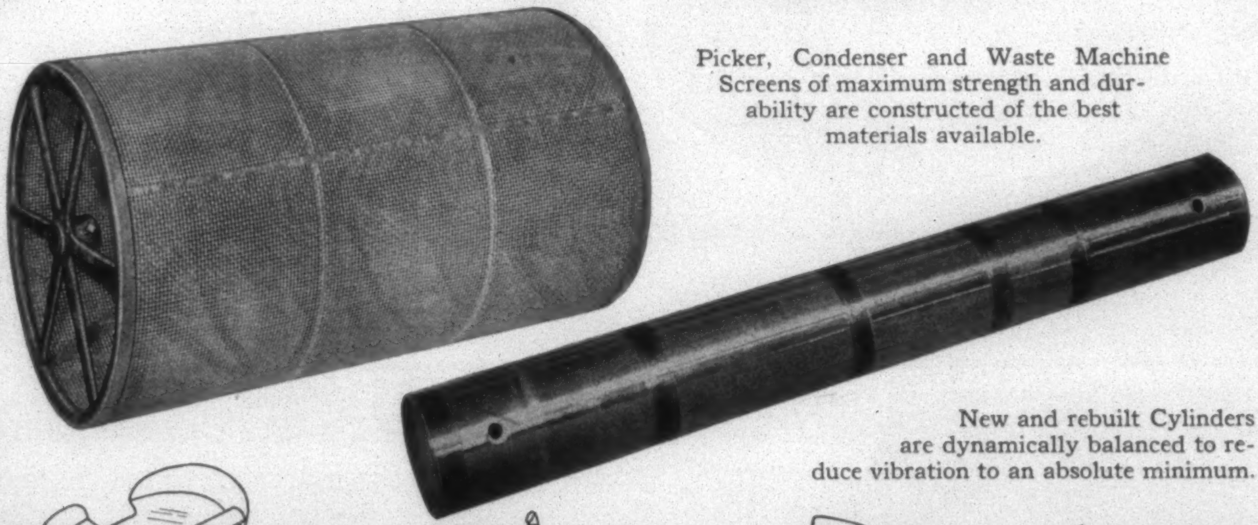

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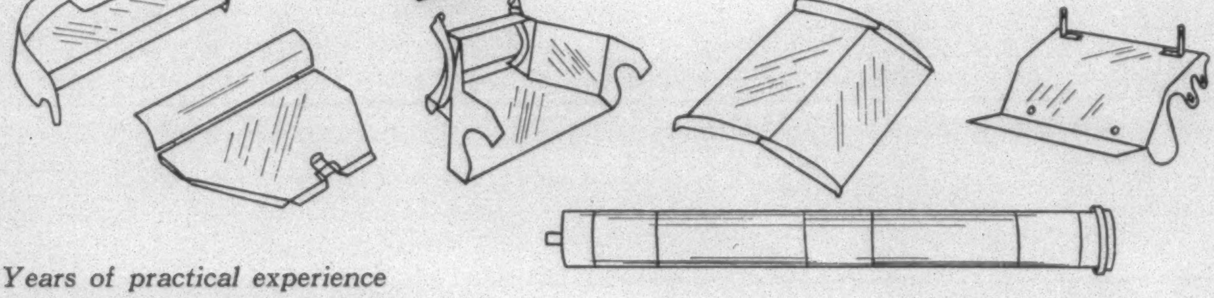

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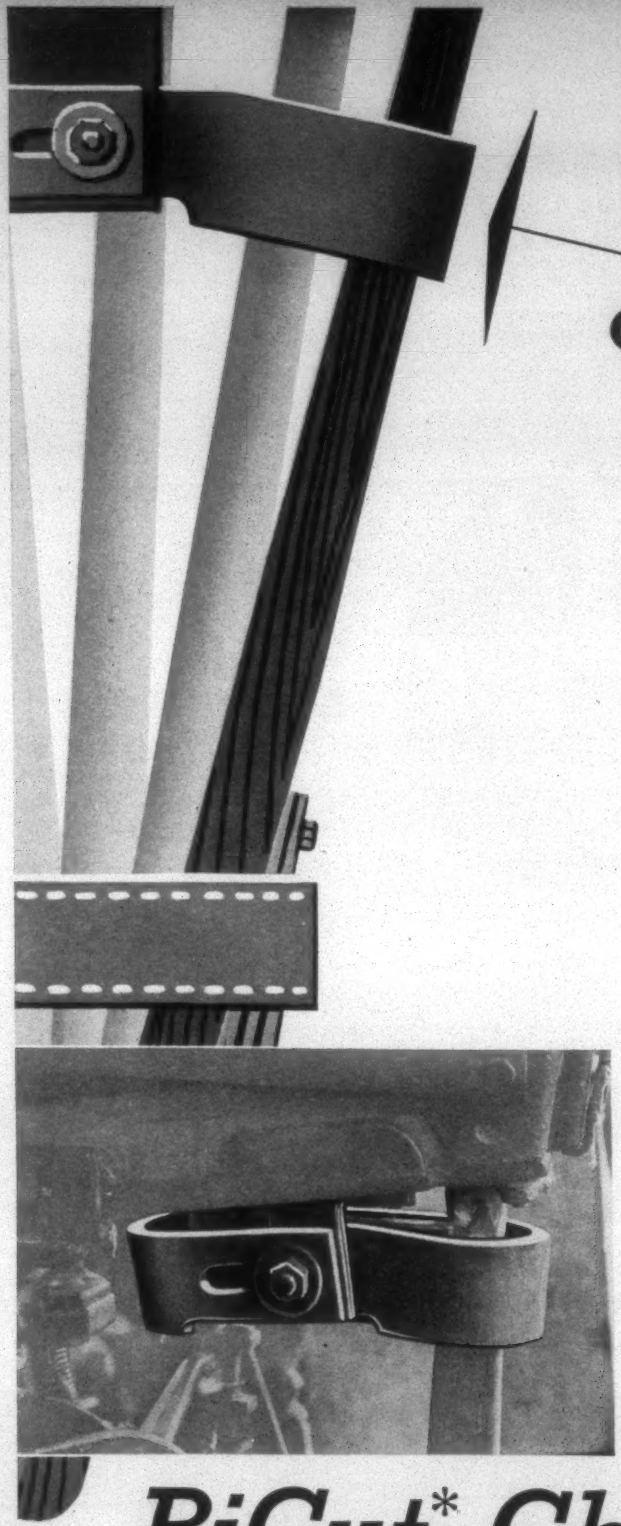

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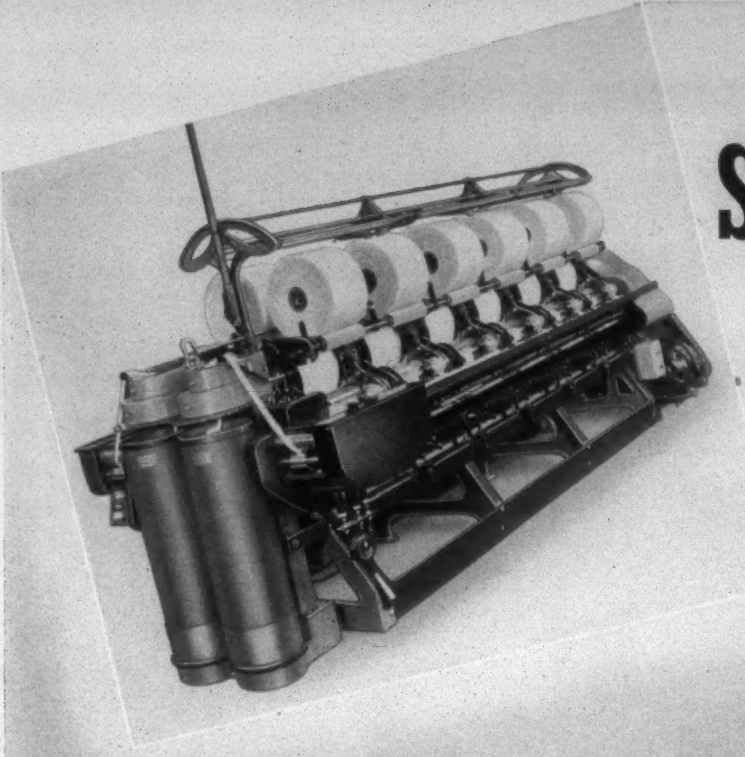

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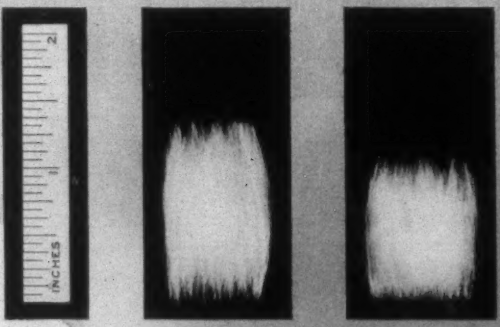
Regardless of the cost of cotton, the recovery of an additional 13.1% spinnable fiber has a definite effect on the cost of the yarn. It is a saving which no mill operating combers can afford to overlook.



Our engineers are available for consultation without obligation, in addition, complete catalog information is available for the asking.

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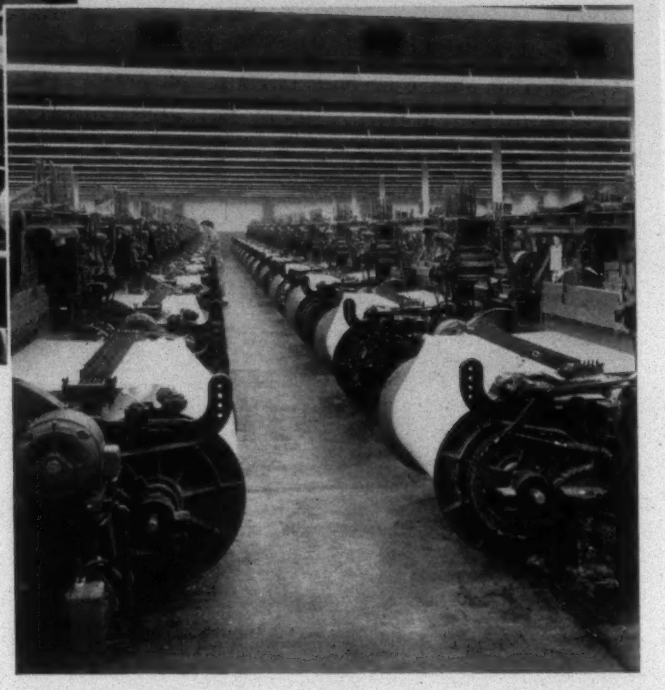

At first glance...

. . . you don't see much Bahnson Equipment in these photographs—but it's there.

Even if you visited this new plant, you might not notice the air conditioning system immediately—but it's there.

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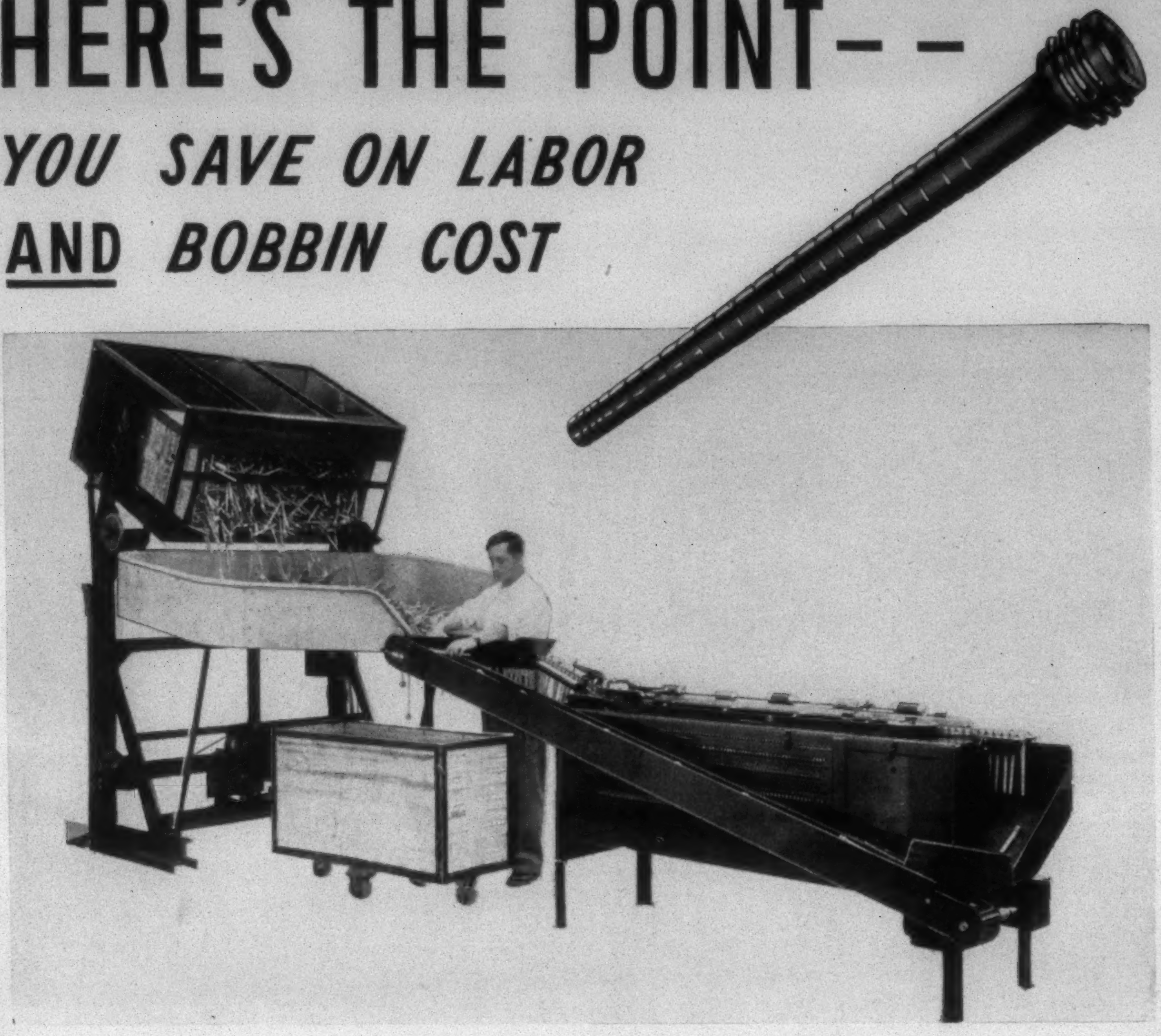

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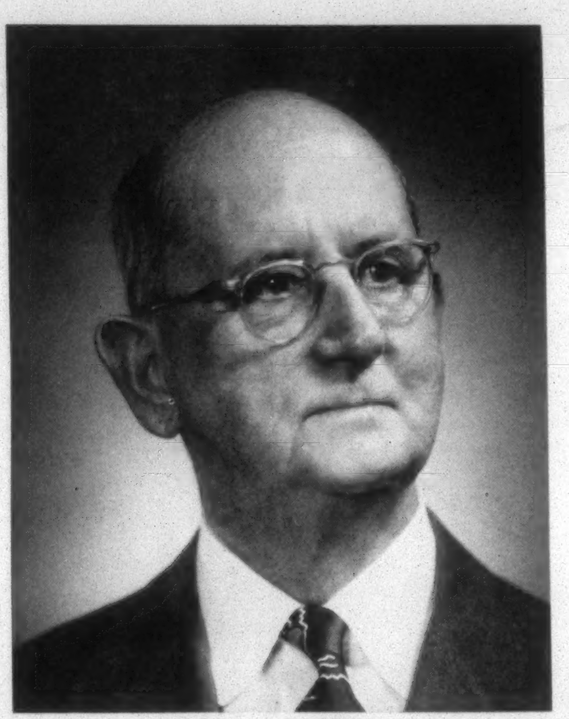
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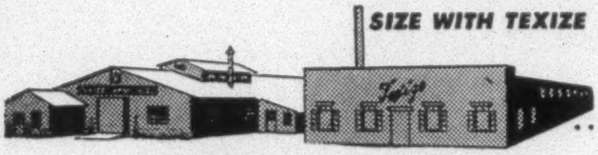
Take advantage of this free service today. Call, wire or write Texize Chemicals for a discussion of your operating problems with Texize sizing specialists.

Texize Products—Sizing Compounds for cotton and all synthetic fibers, Floor Cleaner, Floor Waxes, Wood Preserving Compounds, Insecticides



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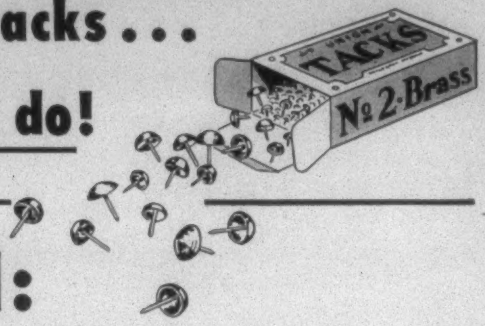
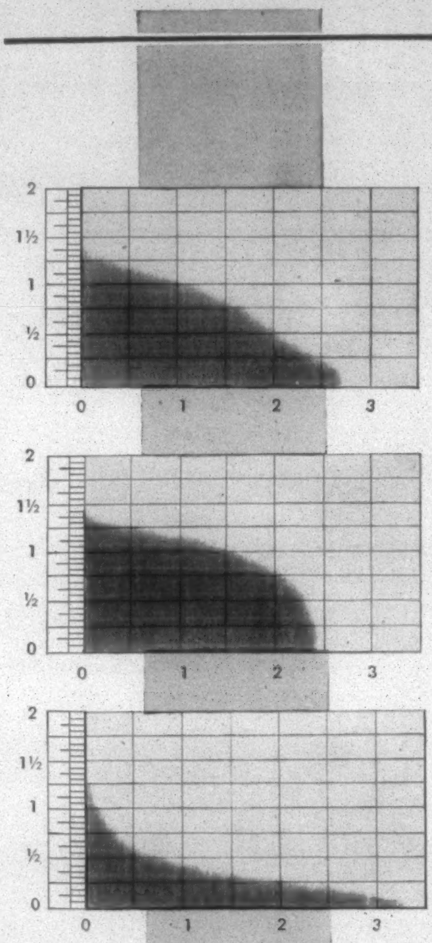
When you get down to brass tacks . . .

here's what a comber should do!



It should:

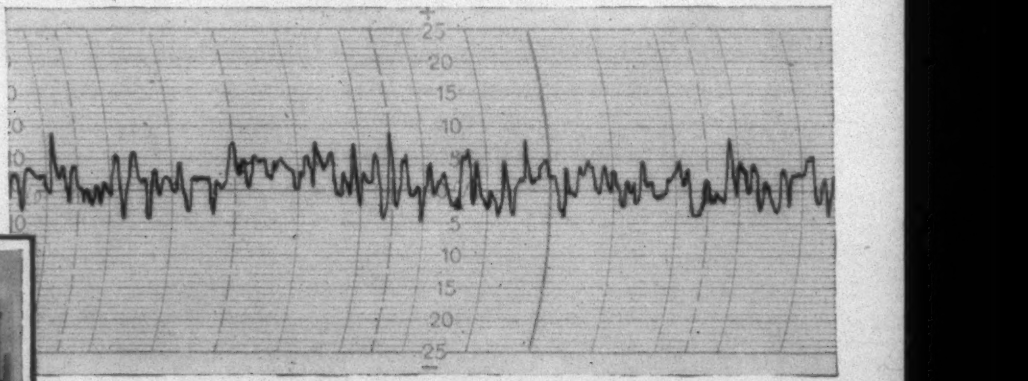
- Produce high quality sliver with low variation.
- Reduce neps to the lowest possible amount. The ratio will vary from 3:1 to 6:1 depending on the staple and the amount of noil.
- Remove practically all of the short fibers and few or none of the long.
- Produce at a high rate compatible with space required, investment costs, and total combing expense.
- Operate with a low productive cost per pound.
- Be easy to adjust, and hold the settings between overhauls.
- Run at high efficiency, requiring minimum expense to maintain, lubricate, and repair.
- Function so simply and smoothly that operator efficiency is high.



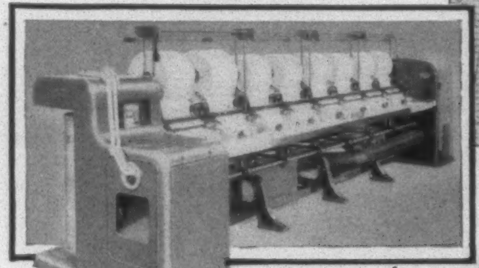
The above fiber arrays show the quality of work done by the Whitin "J" Comber. At top, ribbon lap; center, combed sliver; at bottom, noil. Note that practically all of the short fibers have been removed and only a very few long fibers combed out.

. . . and that's just what the WHITIN model "J" does!

For all-round efficiency, versatility, and superiority of design, it has been acclaimed in both the United States and Europe. Thoroughly tested in mill installations ranging from a few to as many as 200, the Model "J" Comber is recognized as the finest comber yet developed.



Section from Uster graph made in mill test, Whitin "J" Comber sliver. The stock is 55 grain Pima. Test data: average variation, 17.6 per cent; maximum variation, 30 per cent.



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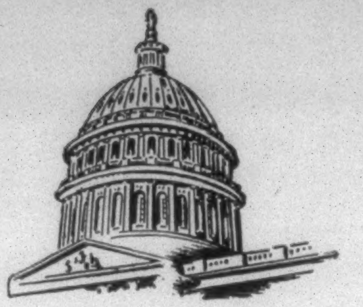

WATCHING WASHINGTON

[Exclusive and Timely News from the Nation's Capital]

Congress is wobbling and stumbling in an effort to cut government spending, reduce taxes and eliminate swollen payrolls. But it is also moving cautiously, with the focus on constructive methods and objectives. The labyrinth of spending is so complex and varied that untangling is formidable and almost impossible. Civil service employees insist they cannot be fired, and jobs must be provided for them. Without a regiment of experts delving into hidden mysteries of spending, the committees are faced with a stupendous undertaking.

Reductions in spending and personnel made so far are in temporary agencies, like wage-price controls, that have been abolished. The departments and permanent agencies are standing filmly behind their estimates in the Truman budget, and insisting that cuts are impossible. It looks like Congress will finally resort to ten to 20 per cent blanket cuts in spending bills as a means of reduction.

Basic trouble is that appropriations committees do not have dependable data on where to cut either spending or the huge roster of 2,600,000 federal employees. Some workers are in "classified" jobs; that is, secret work. No way is found for knowing what workers in these "classified" mysteries do. Some are paid out of "unvouchered funds," which means their salaries are secret, too.

While the Eisenhower Administration has pointed to a possible cut in spending of seven to eight billion dollars, a reduction of two or three billion is more likely. The bureaucrats have labeled a great part of all spending outside of the military as related in some degree to defense. Congress cannot disprove it, and has no option except to vote for the spending.

Drastic cuts in federal spending, and tax reduction, too, this year, are entirely possible, Senator Carlson (R., Kan.) told the Senate. He said it will be difficult to bring spending and revenue into balance, but the prospect is not hopeless, and the new Administration has not given up hope of doing so. He counseled against raising false hope until cutbacks in spending are more certain.

Demands by Chairman Dan Reed (R., N. Y.) to bring up his tax cutting bill in the House went unheeded by House leaders. The bill was voted out by the Ways and Means Committee. But Reed, for nine years Cornell's football coach, said he will continue his demands until the bill is brought up. He contends lower taxes will increase the Treasury's gross revenue through stimulation of business activity.

The most important factor in contemplated tax reduction is the quiet, comprehensive study of the national tax structure initiated by Mr. Eisenhower. The Republican leaders are determined not to reduce taxes if there is a possibility of having to raise them again.

One group in the House thinks that basic tax reduction should be done carefully in conjunction with cuts in state taxes, too. They say federal, state and local taxes are a sprawling hodgepode that has spread without rhyme or reason over the years, with no systematic allocation of tax sources. They

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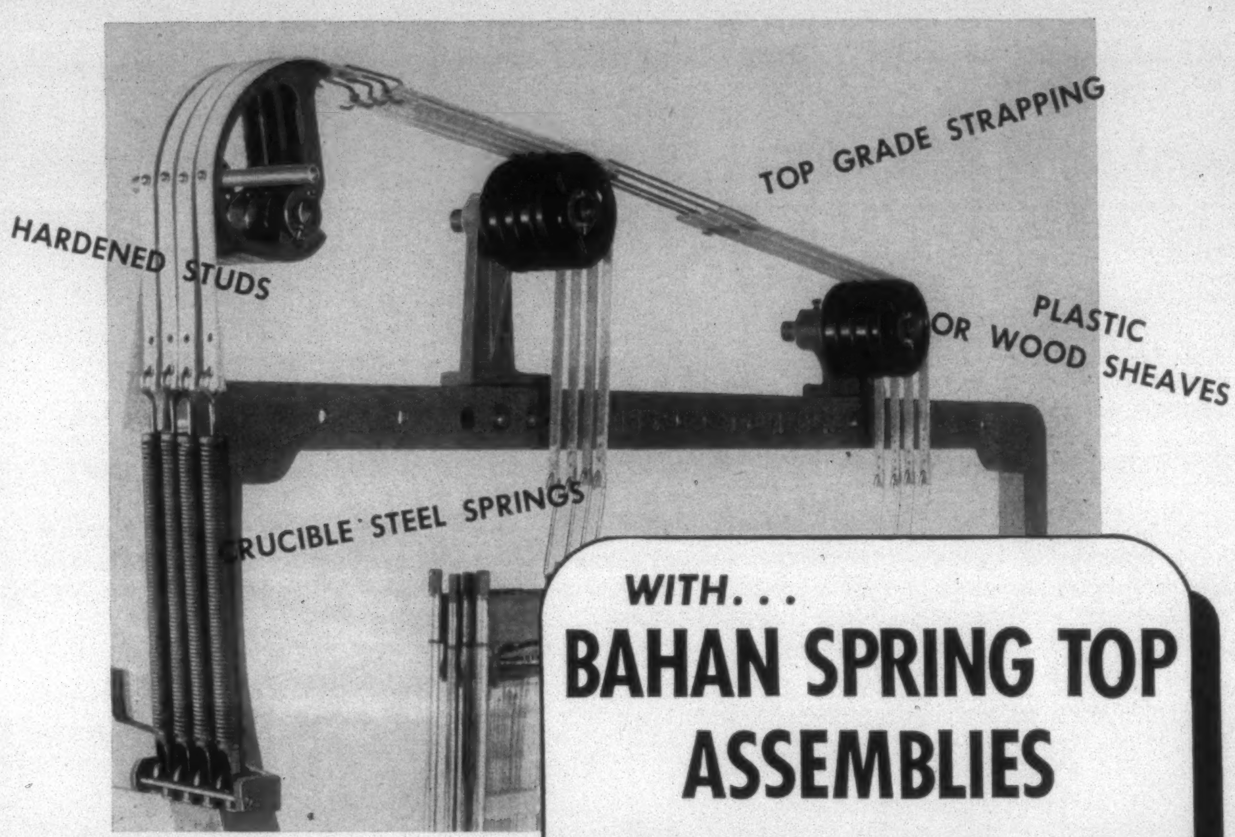

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Bahan Spring Top Assemblies are available for all standard model looms, or can be tailored to fit the customer's special needs. Make sure your next Spring Tops are "Bahan Made" . . . the extra service they give makes a difference!

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BTM

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DESIGNERS AND MANUFACTURERS OF RELIABLE TEXTILE MACHINERY FOR OVER 30 YEARS
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are opposed to the states stepping in with higher income taxes as the federal income taxes are lowered.

House and Senate members differ widely on the extent to which spending for military purposes can be reduced next year. Senator Russell said the amount is probably a half billion dollars. House Member Bonner (D., N. C.) said his sub-committee exploring waste in military spending has tabbed at least $2.5 billion that can be wiped out.

Treasury Secretary Humphrey was pessimistic on the outlook for balancing the federal budget next year in conferring with the Senate Banking Committee. He told them that spending is on such a stupendous scale, and commitments so large, that it is doubtful whether the government can get out of the red before 1955. Chairman Capehart agreed the outlook "isn't pleasant."

The President has launched a sweeping study of federal-state programs and relations with the aim of decentralizing power. The intent is to reduce and eliminate costly programs, with complicating taxes, and to return to the states various functions of government, and responsibility, that have been shouldered by the national government in recent years. Involved are health and welfare programs, road building, aid to education and relief for the poor.

A commission to make the President's study will be provided for in a bill sponsored by Senator Taft. It will have about 25 members, and survey the spending of several billions of dollars in federal and state funds in mutual aid and "dollar-matching" programs.

Every vital provision of the Taft-Hartley Law would be stricken under demands made by A.F.L. President Meany on the House Labor Committee. His position is identical with that of William Green in resisting the original law. His proposals would repeal much of the Wagner Act also, and leave only the skeleton of Section 7-A as a basis for labor relations.

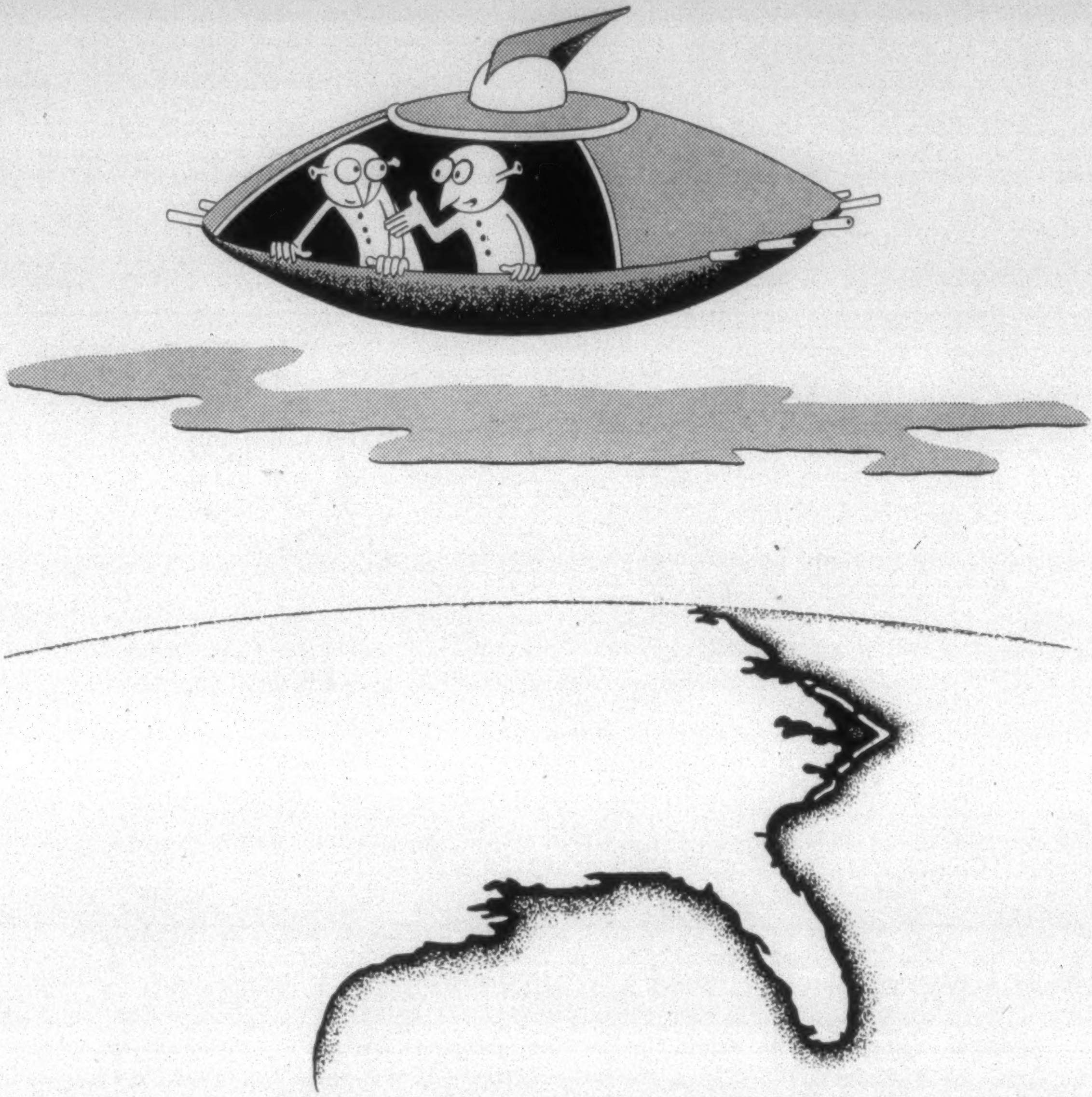
Among the things which Meany wants removed are injunction provisions, including the 80-day court ban on nation-wide emergency strikes. Instead, he said, the government should rely on mediation and conciliation, or just persuasion, to settle big strikes that engulf the whole country. He said that arbitration should be only voluntary.

Meany demanded that the union shop be legalized, and that all wage contracts provide that only union workers may be hired. He asked for repeal of bans on secondary boycotts, and of all provisions allowing employers to bring damage suits against unions. He would allow unions to oust a member, and demand an employer discharge a worker, for "any just cause."

Rules to govern union health and welfare plans should be left solely to the unions, said Meany, and the ban on "feather-bedding" and made work dropped. He asked repeal of the provision that notice must be served before a union may seek to terminate or change a wage agreement. He asked repeal of the non-Communist affidavit provision.

Meany's recommendations to the committee were a close parallel to the demands made public by C.I.O. officials, and urged by John L. Lewis. Under the weight of their three proposals, the Taft-Hartley Law would be wholly wiped out, and very little would be left of the Wagner Act. The government's authority to act in strikes or labor disputes would be eliminated.

Fundamental issues that are coming up in the hearings of the two labor committees on Taft-Hartley bear heavily oon collective bargaining. The committees, especially the House committee, are going into organized labor's



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in the Southern part of the United States Dillard means paper."

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1926 Dillard Paper Company Serves the South 1953 monopoly bargaining power, compulsory union membership, boycotts, national emergency strikes, and the right of replaced economic strikers to vote. Other pending questions are supervision of welfare and pension funds, use of the injunction, Communism in unions, and more legal responsibility for unions.

Hearings on the labor law will continue for a long time, possibly for all of this year. It is not deemed likely that basic changes will come up in either the Senate or the House before next year. Meantime, the committees will make the most thorough study of labor-management relations of recent years, and delve into virtually every disputed point.

Attorney General Brownell has "redefined" the Administration's position that offshore oil lands belong to the states. He said the submerged lands should be returned to the states "without letting them have title to the disputed sea bottom." The intent, he said, is to limit the submerged land area to which the states are given quitclaim title, and vest title beyond the historic three-mile limit in the federal government.

The State Department joined Brownell by telling Congress that the country's international position is threatened in the issue. To grant state claims beyond the three-mile limit, the department said, would remove the grounds for protests that have been made by this government to various foreign governments. Both Texas and Florida lay claim to land areas for 10 1/2 miles offshore.

There's a lot of fallacy in the plea of European countries for lower tariffs in the U. S., say members of the House Ways and Means Committee. Demand for European products, they say, has been steadily declining because of changes in the way of living. Producers in the U. S., they assert, meet domestic demands so fully that foreign products would have intense competition even with all tariffs removed.

Stalin's passing has long been discounted by responsible leaders in the U. S., in and out of government. The Soviets are over-extended in Europe and Asia. Weapon output is largely of defense variety. Quality of work in Soviet factories is most often poor. Informed Russian escapees say Stalinists are not planning major war now, but trying with "purges," bluffs and threats, to hold satellites in line.

Russian moves in the near future are expected to be confined to stepping up the "war of nerves." This is for home consumption, too, for Stalin leaders fear Russian revolt in the event of "hot war," with enemy bombings on the scale that befell German and Japanese cities.

The Senate and House are expected to act favorably on the bill of Senator Byrd (D., Va.) to abolish the R.F.C. The bill has been introduced again, and this time has the approval of Treasury Secretary Humphrey. The agency was set up in 1932 for emergency purposes, but given new leases of life during and after the war.

House members are sharply divided on the issue of broadening provisions of Social Security now. Almost 200 bills to amend the law have been presented. Several of them would bring about 12 million more workers under coverage. Other bills would remove the $75 a month limit on outside earnings by aged persons under 70 receiving benefits.

Provision by law that terms of all compromise settlements in tax claims be made public will be offered in new revenue legislation this year. The provision will come as a result of revelations of settlements of disputed claims, amounting to millions of dollars, for a few cents on the dollar. Senator Williams (R., Del.) said many settlements for "ridiculously small amounts" have been made without consultation with the Department of Justice.

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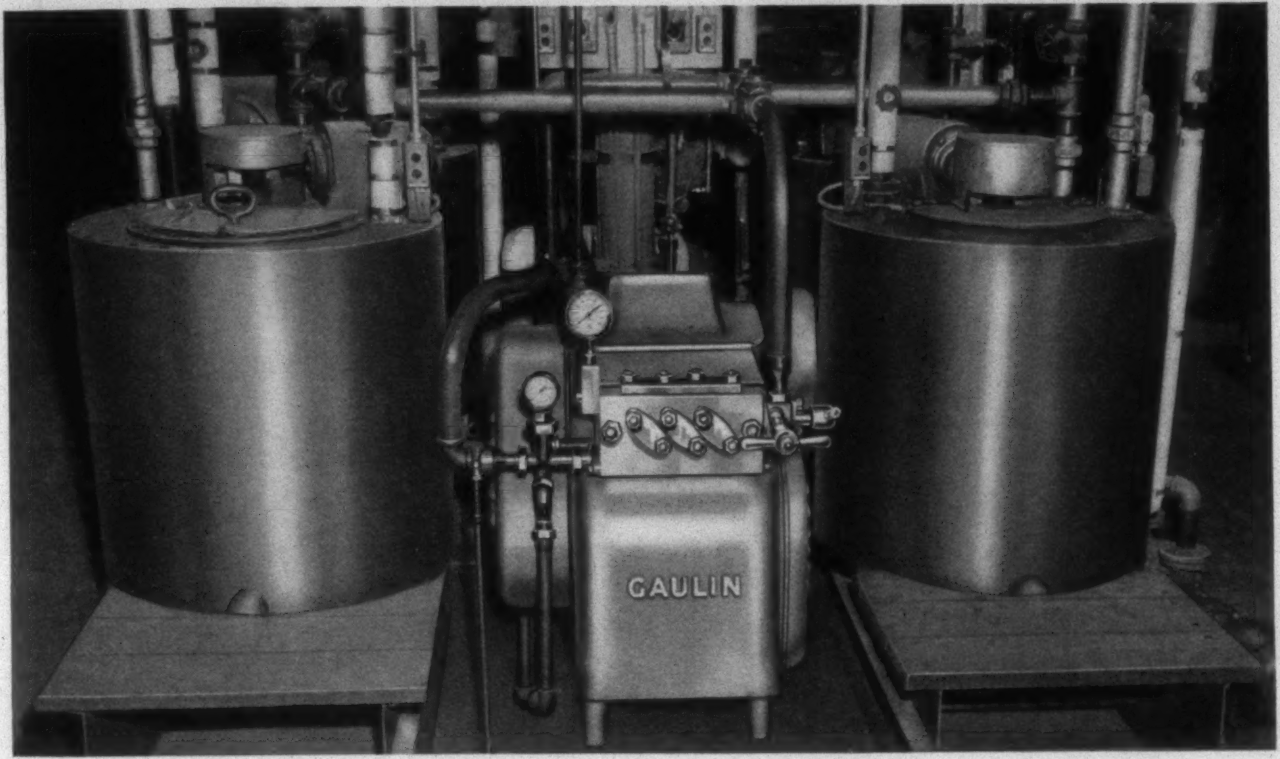

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textile bulletin

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TEXTILE BULLETIN is devoted to the dissemination of information and the exchange of opinion relative to the spinning and weaving branches of the textile industry, as well as the dyeing and finishing of yarns and woven fabrics. Appropriate material, technical and otherwise, is solicited and paid for at regular rates. Opinions expressed by contributors are their own and not necessarily those of the editors and publishers. A companion monthly journal, THE KNITTER, is devoted to the interests of the knitgoods industry.

Vol. 79 **March 1953** **No. 3**

The Walsh-Healey Situation (Cont.)

As the result of injunctions obtained by approximately 150 spinning and weaving firms, the nation's capital will be the scene of a court test deemed of far-reaching significance in its possible effect on hundreds of firms in other industries working on military and government contracts throughout the country.

The issue at stake, according to the textile manufacturers, is whether or not the government has the power to impose a single minimum wage for a whole industry, nationwide, under the Walsh-Healey Public Contracts Act. They contend the Secretary of Labor has done this arbitrarily in the past by administrative dictate, not in accordance with law.

Their chance to have the question settled in court came when former Secretary of Labor Tobin, in one of his last official acts, issued a new industrywide textile minimum wage determination and ordered that it become effective on Feb. 21 for any mill bidding on a government contract worth $10,000 or above.

He said he was acting under authority given to him by the Walsh-Healey Act. Until this year, no one in textiles or any other industry had the right to appeal government decisions under that act. Provision for court review was made by Congress last Summer, however, and the textile industry is the first to ask that the issue be ironed out in court.

In ordering a stay of the Tobin order's effective date and in enjoining present Labor Secretary Durkin from applying the Tobin decree to the 150-odd plaintiff mills, Federal Judge Henry A. Schweinhaut ruled that the determination "is probably unlawful and not in conformity with the requirements of law and statute."

One point of dispute has to do with the application of the term "locality." Many textile men contend the language and intent of the public contracts law give the Secretary of Labor authority only to ascertain what the prevailing rates are in the lowest paid jobs of each industry in each locality, and then to declare that no manufacturer who wishes to bid on government contracts above $10,000 may pay any employee less than the minimum which prevails in his industry in his local area.

Because a number of wage determinations in textiles and other industries have been ordered on a nationwide basis, the Labor Department apparently considers it reasonable to call the United States a "locality," it is pointed out. Judge Schweinhaut's comment, as he issued the injunction, was that "it seems to me 'locality' clearly does not mean the United States of America."

Textile leaders like W. A. L. Sibley of Union, S. C., president of the American Cotton Manufacturers Institute, say they welcome the court test because "since the beginning of the Walsh-Healey Act, through administrative interpretations and directives, it has been brought to bear in situations and in methods which we believe were never intended by Congress. We do not believe Congress had in mind the collective standardization of wages in an industry on a nationwide scale, but rather protecting a local business from any unscrupulous operator across the street."

Pointing out that all industry is obliged to uphold the Fair Labor Standards Act, he said Walsh-Healey policies resulting from Labor Department interpretations complicate procurement of textiles and cost heavily in lost time and effort by "requiring such red tape as two minimum wages, two age limits, two hourly limitations, and two laws to be interpreted for compliance."

In further respect to the "locality" element of this argument, it might be of value to review a concurrent situation which exists at one of the plants of the Carboloy Department of General Electric Co. This plant happens to be in Edmore, Mich., so the trite "low-pay South" argument cannot be used in the case. It is customary when a new plant is built in a community for all the unions for miles around to try to organize the employees—the competition among unions today for large new blocks of dues-paying members being very keen, and for pretty obvious reasons. It is also customary for the competing unions to make promises of many and substantial gains for employees in compensation, benefits and working conditions, no matter what the existing scale of pay and benefits may be. Then later on the union must attempt to deliver on its promises, even if it means a strike must be called in an attempt to force the company to meet what the union has promised employees—even before the union had bargaining rights—in return for monthly union dues.

With that as background, let's delve into the case at Edmore. Workers at present are unorganized, but are being tempted by various promises from C.I.O. and A.F.L. unions. The two unions indicate that they can get various benefits if allowed to represent the Edmore workers, citing what is paid in Detroit. But General Electric for more than 50 years has been in the habit of paying the wage scale of the particular community where one of its plants is located. It pays Detroit rates in Detroit, Cleveland rates in Cleveland, Seattle rates in Seattle, and wants to pay Edmore rates in Edmore. The skill, care and effort required by jobs are paid for by rates which are right considering the wages paid in the particular community for jobs requiring similar skill, care and effort.

Thus, G.E. does not expect to pay Detroit rates in Edmore any more than it expects to pay Georgia or Alabama rates in Edmore. The G.E. wage scale for the Edmore plant was determined by a rate survey in that area and was finally approved by the Wage Stabilization Board, which first thought that some of the rates were too high for the Edmore area. W.S.B. has followed the community rate wage practice generally in approving rates of pay for new plants.

The Edmore matter has little or nothing to do with the Walsh-Healey controversy in the textile industry. The point is that one branch of the Federal Government saw fit to go along with the community rate wage practice, while another (the Department of Labor) argues that the entire country is a locality. We would further venture to say that if the town of Edmore had not been 150 miles northwest of Detroit, in the State of Michigan, and instead had been in Mississippi or Alabama, the C.I.O. and the A.F.L. would have made with great sound and fury about the low-pay South enticing industry away from the mechanics' heaven in the Midwest.

That is what has happened in regard to Walsh-Healey. New England cotton and rayon manufacturers have been yelling their heads off about cutthroat Southern competition, when in reality they have allowed themselves to become enveloped by burdensome union demands. Their attitude is "We're in a jam, so we are going to do all we can to get you in a jam too, and thus *our* position will be relatively better."

Strangely enough, we find ourselves in agreement with some parts of a speech delivered recently at Fall River, Mass., by William F. Sullivan, president of the National Association of Cotton Manufacturers, the New England organization which is so strong in its support of the proposed new Walsh-Healey minimum. Mr. Sullivan pointed out that the textile industry is highly competitive on the basis of price, and that "labor accounts for a high proportion (45 per cent) of total production costs." He then reminded his listeners that New England no longer has a monopoly or quasi-monopoly of textiles; but he claimed that New England cotton and rayon mills now pay their workers 23 cents an hour more in wages and fringe benefits than Southern mills do. He went on to say that "Goods must be produced and sold in a national market on a par with those who have much lower production costs." That is selling at a loss, it seems to us, and we can't see how Mr. Sullivan expects to overcome this disadvantage unless he gets the Labor Department to effect a general wage increase in Southern mills. Even if he does, it doesn't take much imagination to figure out what will ensue. The unions, so strongly entrenched in New England, would then complain that there has historically been a differential between Northern and Southern textile rates; they would force a raise out of New England mill owners, and then turn right around and begin bellyaching all over again about low rates in the South.

When we first read it we thought there might be a joker in the deal, but it seems to be a fact that Laurence F. Whittemore, president of the New England Council, made a public statement recently in which he opined that it was a mistake for the New England Governors' Committee on Textiles, another organization, to recommend that New England do everything possible to encourage unionization of the Southern textile industry. Mr. Whittemore said that the American way was for each section to work out its own problems, and not for one section to interfere with another.

Members of the National Association of Wool Manufacturers, located—at least for the present—principally in New England, seem to be enlightened on the Walsh-Healey subject. Many members of the N.A.W.M. also happen to be constituents of the various New England governors, United States Senators and Representatives who have been consorting with textile union officials on Walsh-Healey. It seems that former Secretary of Labor Tobin made another new Walsh-Healey determination before he left office, increasing the minimum in the woolen and worsted industry from $1.05 to $1.20 an hour. The N.A.W.M. and 105 of its member mills have urged the present Secretary of Labor, Martin Durkin, to withdraw the proposed order, since the Walsh-Healey Act requires that minimum wages be determined by localities instead of on a nationwide basis. This is the same argument originated by the Southern mills in the cotton-rayon case.

We wonder what Cotton Manufacturer A and Woolen Manufacturer B talk about when they meet at intermission during a Boston Symphony concert. Not Walsh-Healey.

Latest Scores In The Union League

The Textile Workers Union of America, C.I.O., which according to its latest financial report (covering the period of March 1, 1951 through February 29, 1952) disbursed cash amounting to a total of $6,718,964.50 in its efforts to organize—and keep organized—American textile workers, is currently incensed because it lost last month a representation election conducted by the National Labor Relations Board among workers at Rhyne-Houser Mfg. Co., Cherryville, N. C.

The loss of this election is so irritating to the T.W.U.A. that it had to offer some excuse, said excuse being that seven clergymen in Cherryville conspired with the company to convince the workers that they should not join the union.

The facts of the matter are as follows: Prior to the scheduled election the seven ministers got together and decided, generally, that Cherryville was a happy community which had no need for the usual bitterness which arises between pro-union and anti-union workers, often between members of the same family. So the ministers drew up a letter which they addressed to the Rhyne-Houser workers, saying that union organization would disturb the good spirit and fellowship in the community. They also urged the workers to vote, which apparently they did. Of 374 eligible, 348 cast ballots, with 16 being challenged by the union; the union lost by 234 to 98, as reported in last month's issue of this magazine.

Emil Rieve, president of the T.W.U.A., became so irritated about losing another representation election that he addressed a letter to the seven clergymen, saying to them that "We should not be enemies, but allies." He objected very strenously to the fact that the preachers had any ideas on the subject of unionization in Cherryville. Emil must have forgotten that he had a preacher working for him up

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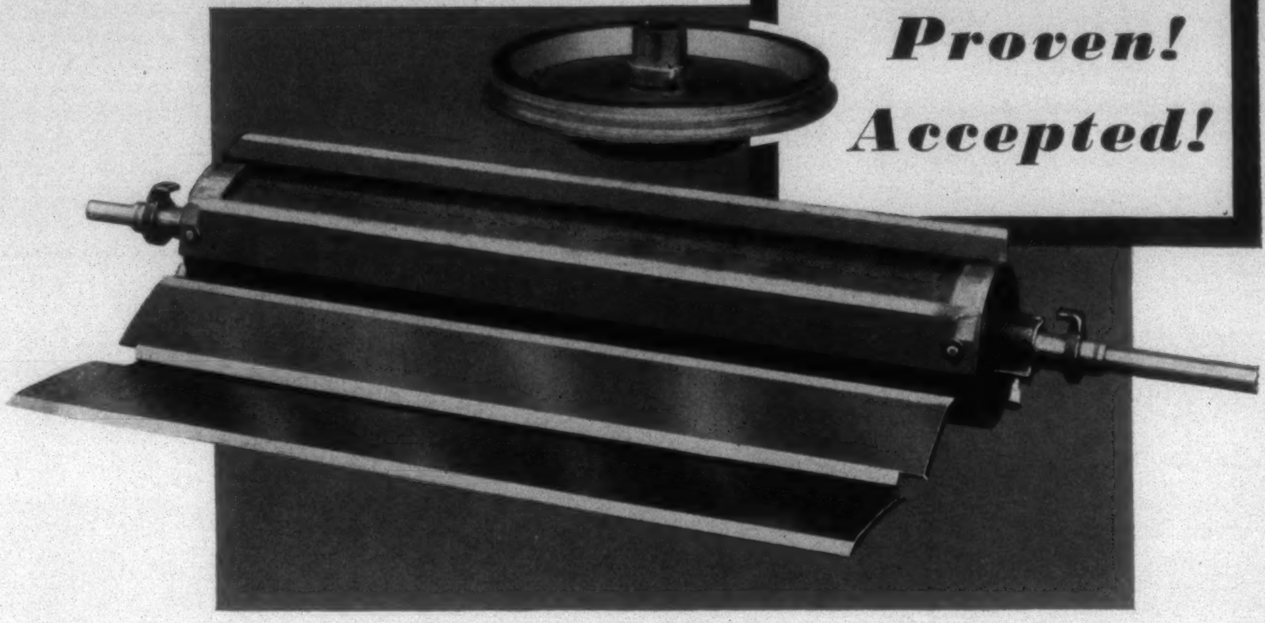

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in Virginia—either Danville of Lynchburg—who may or may not now be affiliated with the T.W.U.A., C.I.O.

It isn't difficult to assume that Emil right now would like to forget the word "affiliate," since textile workers in the South seem to prefer the word "disaffiliate" as far as the T.W.U.A. is concerned. The workers, if results of recent representation elections continue to be indicative of anything, seem to prefer "no union" to any union, and if there has to be a choice between the lesser of two evils, they prefer the United Textile Workers of America, A.F.L., to the T.W.U.A., C.I.O. Parenthetically, we again remind our readers that we find few desirable qualities in either of the unions, but can't help being somewhat tickled to see Emil's T.W.U.A. take some lumps from the U.T.W.A., now largely an organization of professional labor barnacles who seceded from the C.I.O. The following representation elections have been reported during the past month:

At Lane Cotton Mills, New Orleans, La., workers voted 720 for the *U.T.W.A.,* 383 for T.W.U.A., five for "no union."

At Woodside Mills, Greenville, S. C., workers voted 571 for the *U.T.W.A.,* 450 for "no union." (The T.W.U.A. withdrew from this contest three weeks prior to the election, apparently feeling that it's better not to ask the gal to marry you if you know she is going to turn you down.)

At American Thread Co., Tallapoosa, Ga., workers voted 286 for *"no union,"* 201 for the T.W.U.A. (The U.T.W.A. wasn't in on this one.)

At Cranston Print Works, Fletcher, N. C., workers voted 143 for *"no union,"* 109 for the T.W.U.A., and 16 for the U.T.W.A.

At Dacotah Cotton Mills, Lexington, N. C., workers voted 167 for *"no union,"* 101 for the U.T.W.A. (Here, the T.W.U.A. had no interest.)

Since April of 1952 (when the George Baldanzi-Lewis Conn element declared itself out of the C.I.O. Textile Workers Union of America game and took a seat at the United Textile Workers of America, A.F.L., table), the N.L.R.B. has conducted, according to the best records available, 37 representation elections in Southern spinning and weaving plants. Of these, employees have voted for "no union" 18 times, for the U.T.W.A. 17 times, and for the T.W.U.A. only twice.

Obsolete—But Not Worn Out

We were struck by a short article which appeared in the Fall issue of *Bur-Mil News,* the house organ of Burlington Mills Corp. The article was headed with an illustration of a kerosene lamp; notation was made that:

> The lamp you see above is more than 40 years old. It's just as good, however, as the day it was made. It puts out every bit as much light, it's not worn out in the least.
>
> But would *you* want this lamp to light *your* home? Hardly.
>
> As soon as the electric light came along the oil lamp immediately became obsolete.
>
> The same thing is true of machinery we use in our Burlington plants. Rarely do we ever wear out a loom, a knitting machine, a spinning frame. We don't wait till our machinery falls apart or breaks down before we throw it out. On the contrary, we are constantly replacing obsolete machinery with newer types and more efficient models. Frequently changes in style demands require early replacement of costly and expensive equipment.
>
> Any machinery or equipment automatically becomes obsolete the moment something better—something that produces more at lower cost—is invented or developed. And in a company the size of ours, a company that uses as many different types of equipment as we do, that means constant turnover in machinery. It means spending hundreds of thousands of dollars every year for the latest type equipment so we can stay abreast of style and fashion demands, produce better quality products, and stay ahead of our competitors. It means installing the most efficient machinery money can buy in order to produce better goods at lower costs than our competitors. In short, it means giving us at all times the very best tools to work with in order to make our jobs more secure.

The moral? Obvious, isn't it, if you think about it?

O.P.S. For The Archives?

The Office of Price Stabilization will be buried April 30. Reasonable men may perhaps differ as to its ultimate benefit to our country, but we can all agree that economy was not its watchword. Last year, under the Truman budget, O.P.S. was given $36,900,000 to spend.

When the President abolished this agency during the midst of the fiscal year, some of the appropriated funds had not been spent. It is reported that those in charge of this dying agency have decided not to turn back the unexpended funds into the public treasury, but instead are planning to spend a large sum of money financing a history of O.P.S. Apparently the agency has either made a deal or contemplates one with a writer to produce this history at $7 per hour without any limitation as to time; that he has the privilege of hiring associates to be paid $2 per hour each, and consultants at $50 per day.

The nation can thank new Republican Congressman Charles R. Jonas of the Tenth North Carolina District for pinpointing this proposed folly. We, like Representative Jonas, see no need to spend a large sum of money preparing a history of the O.P.S., since that history can be written in one word—failure.

Management-Supervisory Gap

Executives and foremen are farther apart today than they were a year ago in evaluating supervisory needs, the Research Institute of America reported recently. An institute survey made last year showed the two groups at odds on specific problems but agreeing on the three main areas in which foremen need information: first, human relations; second, operations and procedures; third, economics. A similar survey this year shows that human relations, still rated first by supervisors, has dropped to second place for executives, while operations and procedures, ranked third by foremen, are rated most important by their superiors.

The Research Institute of America, which analyzes economic and industrial problems, sent executives and supervisors identical questionnaires in 1952 and again in 1953 covering the subjects they considered most important for the supervisors.

From the two surveys the Research Institute of America also notes a "surprising" increase in interest *among supervisors* in economic information. Executives place this third, as *both groups* did in 1952; supervisors now rate it second. Institute analysts attribute the shift to the "election campaign which stimulated a general public interest in economic matters now being reflected by supervisors, and to international crises which sharpen concern over national affairs." They expect this trend to continue.

These shifts have added significance, the Research Insti-

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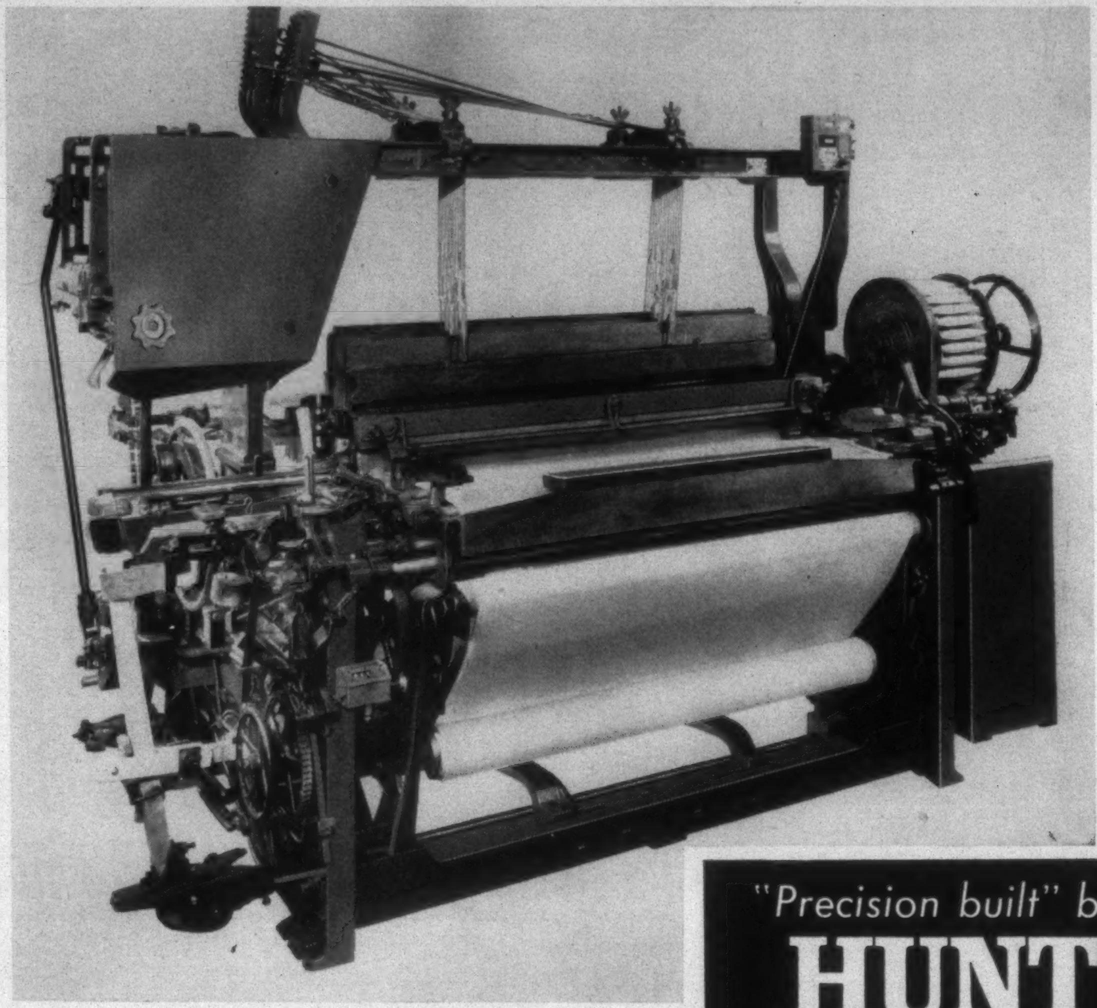

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tute of America believes, because each of the three "subject areas" actually represents a cluster of topics. "Economic information," for instance, included topics like the international situation, business finance and statistics, with supervisors rating their need for information on all three of these specific subjects higher than executives rated the supervisors' need.

These shifts deserve all the attention top management can give them, the Research Institute of America points out, since "at the very least, they imply that higher management is either losing touch with front line needs or is more aware of what supervisors need than the supervisors themselves. In either case the first step toward improving the situation is better communication between the two levels."

This is particularly evident, the institute believes, from the discrepancy between executives and supervisors on the importance of operational information: "Looking ahead at the very unclear picture presented by the coming year, top executives generally feel that management's number one task is keeping operational costs at a minimum. Unfortunately it would seem they have not yet succeeded in communicating this down the line. At the same time it is highly significant that front-line people show a considerable loss of interest in cost matters as compared with last year."

Other discrepancies were uncovered by the Research Institute of America's two polls. Executives show more interest in "communications" than their supervisors, or than they themselves did last year. "Pressure" continues to be of greater concern to supervisors this year and last than to executives "indicating that overseers continue to encounter more difficulty meeting their superior's demands and getting co-operation from subordinates than executives realize."

Both groups gave "turnover" a low ranking last year. Executives now place it higher, supervisors lower. "Dealing with superiors" rated high by supervisors both years, low by executives. The fact that executives "don't recognize subordinates' need for help in this area probably contributes to the latters' sense of pressure."

Important areas of agreement also emerged from the current survey, the Research Institute of America reports. Both groups believe that front-line people need more guidance on how to tackle problems and that overseers must develop greater "sensitivity to trouble symptoms" among the groups they supervise.

TEXTILE INDUSTRY SCHEDULE

— 1953 —

March 26-28—Annual convention, **AMERICAN COTTON MANUFACTURERS INSTITUTE**, Palm Beach Biltmore Hotel, Palm Beach, Fla.

March 28—EASTERN CAROLINA DIVISION, S.T.A., North Carolina State College School of Textiles, Raleigh.

April 4—SOUTH CAROLINA DIVISION, S.T.A., Cleveland Hotel, Spartanburg.

April 8-10—A.M.A. CONFERENCE ON MANUFACTURING, Hotel Statler, New York City.

April 9-11—Annual convention, **ALABAMA COTTON MANUFACTURERS ASSOCIATION**, Buena Vista Hotel, Biloxi, Miss.

April 10—TEXTILE QUALITY CONTROL ASSOCIATION, Clemson, S. C.

April 11—PIEDMONT SECTION, A.A.T.C.C., Hotel Robert E. Lee, Winston-Salem, N. C.

April 13-15—Annual meeting, **AMERICAN SOCIETY OF LUBRICATION ENGINEERS**, Hotel Statler, Boston, Mass.

April 18—Carding and spinning meeting, **TEXTILE OPERATING EXECUTIVES OF GEORGIA**, Harrison Hightower Building, A. French Textile School, Georgia Institute of Technology, Atlanta.

April 20-23—A.M.A. PACKAGING CONFERENCE AND EXPOSITION, Navy Pier, Chicago, Ill.

April 22-23—Spring meeting, **THE FIBER SOCIETY**, New Orleans, La.

April 23-24—Textile Electrical Conference, **TEXTILE SUB-SECTION, AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS**, A. French Textile School, Georgia Institute of Technology, Atlanta.

April 23-25—Annual convention, **COTTON MANUFACTURERS ASSOCIATION OF GEORGIA**, Boca Raton (Fla.) Hotel and Club.

April 25—NORTHERN NORTH CAROLINA-VIRGINIA DIVISION, S.T.A., Fieldale (Va.) Y.M.C.A. Building.

May 7-9—Annual convention, **PHI PSI TEXTILE FRATERNITY**, Penn-Sheraton Hotel, Philadelphia, Pa.

May 11-16—NATIONAL COTTON WEEK.

May 13-15—NORTH CAROLINA STATEWIDE INDUSTRIAL SAFETY CONFERENCE, Robert E. Lee Hotel, Winston-Salem.

May 14-16—Annual outing, **CAROLINA YARN ASSOCIATION**, The Carolina, Pinehurst, N. C.

May 18-20—A.M.A. CONFERENCE ON INSURANCE, Hotel Statler, New York City.

May 18-22—NATIONAL MATERIALS HANDLING EXPOSITION, Convention Hall, Philadelphia, Pa.

May 23—SOUTH CENTRAL SECTION, A.A.T.C.C., Hotel Patten, Chattanooga, Tenn.

May 25-30—Annual conference, **TEXTILE INSTITUTE**, Llandudno, North Wales, England.

May 29—TEXTILE DIVISION, AMERICAN SOCIETY FOR QUALITY CONTROL, Convention Hall, Philadelphia, Pa. (as part of A.S.Q.C. meeting).

May 28-30—Annual convention, **SOUTH CAROLINA TEXTILE MANUFACTURERS ASSOCIATION**, The Cloister, Sea Island, Ga.

June 12-13—PIEDMONT SECTION, A.A.T.C.C., Mayview Manor, Blowing Rock, N. C.

June 17-19—AMERICAN MANAGEMENT ASSOCIATION CONFERENCE ON GENERAL MANAGEMENT, Hotel Statler, New York City.

June 18-20—Annual convention, **SOUTHERN TEXTILE ASSOCIATION**, Mayview Manor, Blowing Rock, N. C.

June 29-July 3—Annual meeting, **AMERICAN SOCIETY FOR TESTING MATERIALS**, Chalfonte-Haddon Hall, Atlantic City, N. J.

Aug. 3-7—INTERNATIONAL TEXTILE INDUSTRIES EXPOSITION, Hotel Astor, New York City.

Aug. 21-22—Outing, **SOUTH CENTRAL SECTION, A.A.T.C.C.**, Chattanooga (Tenn.) Golf and Country Club.

Sept. 10-11—Fall meeting, **THE FIBER SOCIETY**, Lowell, Mass.

Sept. 12—PIEDMONT SECTION, A.A.T.C.C., Hotel Charlotte, Charlotte, N. C.

Sept. 17-19—National convention, **AMERICAN ASSOCIATION OF TEXTILE CHEMISTS AND COLORISTS**, Conrad Hilton Hotel, Chicago, Ill.

Oct. 1-2—Annual convention, **QUARTERMASTER ASSOCIATION**, Lord Baltimore Hotel, Baltimore, Md.

October—TEXTILE MACHINERY AND ACCESSORIES EXHIBITION, Belle Vue, Manchester, England.

Oct. 14-24—INTERNATIONAL EXHIBITION OF TEXTILE MACHINERY AND ACCESSORIES, Belle Vue, Manchester, England.

Oct. 15-16—Annual meeting, **NORTH CAROLINA TEXTILE MANUFACTURERS ASSOCIATION**, The Carolina, Pinehurst, N. C.

Oct. 29-30—Annual convention, **CARDED YARN ASSOCIATION**, Grove Park Inn, Asheville, N. C.

Dec. 5—SOUTH CENTRAL SECTION, A.A.T.C.C., Hotel Patten, Chattanooga, Tenn.

— 1954 —

Feb. 17-19—COTTON RESEARCH CLINIC, sponsored by National Cotton Council of America, The Carolina, Pinehurst, N. C.

April 22-24—Annual convention, **AMERICAN COTTON MANUFACTURERS INSTITUTE**, Jung Hotel, New Orleans, La.

April 26-May 1—AMERICAN TEXTILE MACHINERY EXHIBITION, Atlantic City (N. J.) Auditorium.

June 10-12—Annual convention, S.T.A., Ocean Forest Hotel, Myrtle Beach, S. C.

Oct. 4-9—SOUTHERN TEXTILE EXPOSITION, Textile Hall, Greenville, S. C.

National convention, **A.A.T.C.C., Atlanta, Ga.** (Dates not yet selected.)

— 1955 —

Sept. 21-23—National convention, **A.A.T.C.C.**, Chalfonte-Haddon Hall, Atlantic City, N. J.

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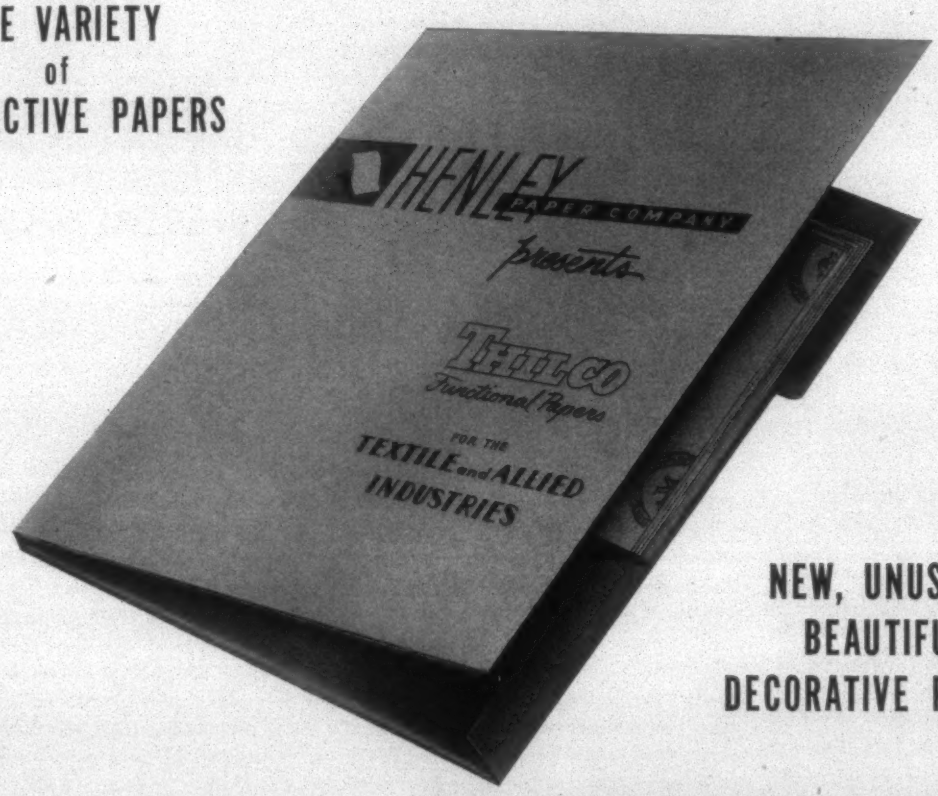

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Clemson Scores Again

RESEARCH in the Clemson School of Textiles has developed another new device which will improve textile machinery. It is said to "produce leno weaves without the use of doups. The arrangement is worked entirely from a dobby head which makes it possible to intermix pick by pick, plain weave, ordinary leno, or even full-turn leno."

This description may be "as clear as mud" to the average layman, but plain as the palm of the hand to a weaver. It is obvious, however, that it permits mixing different kinds of weaves.

The Clemson School of Textiles has contributed in the past to developments in this line, and other innovations have been made in its other departments.

In this respect the South Carolina Agricultural and Engineering College is adding to the Southern research on which we recently commented. — *The State,* Columbia, S. C.

Humphrey's Compromise

SENATOR Hubert E. Humphrey, Democrat of Minnesota, is an adaptable fellow. As a member of the majority party, Mr. Humphrey has for years badgered and butted his colleagues from the South on civil rights. No compromiser, he, on this vital legislation. Nothing but 100 per cent, unconditional surrender to the forces of sweetness, light, liberality, and civil rights. And if as result of this policy of all-or-nothing, nothing prevailed, that was all right, too with the senator. It made a darned good campaign issue. You know: Benighted Southerners team with reactionary Republicans to defeat liberals and true friends of the common man.

As a matter of fact, the long stymied Federal Fair Employment Practices Commission did make a wonderful political football, second only to the Taft-Hartley Law in its ability to bring from the political demagogues the greatest torrent of words in recent political history. And let it be recorded in favor of Senator Humphrey that no other senator exceeded him in wordage, for the simple reason that the senator from Minnesota is probably the fastest talking man in the Senate if not the whole United States.

The truth is, as any honest man interested in civil rights knows full well, there have been political charlatans more interested in maintaining the Fair Employment Practices Act as a campaign gimmick than in bettering the lot of the Negro. Now it is interesting to see that, under a Republican administration, Senator Humphrey is trying to woo the South by a compromise offer that falls short of the original bill offered by the so-called liberal wing. It would set up a commission to survey the duties and activities of federal agencies in fields of employment, education, health, and housing. "It is better," says the new Senator Humphrey, "to go a foot than to fail to go a mile." An interesting figure of speech.

Unfortunately, as a member of the minority side who has not especially endeared himself to his Southern colleagues, the verbigerative Mr. Humphrey is unlikely to move any measure he sponsors by even an inch. In fact Mr. Humphrey's belated attempt to effect a reasonable compromise would have been a statesmanlike thing two years ago, or even a year ago. Now it is nothing but the gesture of one who occupied front-center for a long time, and who cannot yet appreciate that when new approaches are made to these problems, they will be made by a new leadership that has not been repudiated by the people. — *Hartford* (Conn.) *Courant.*

A Compliment To South

FOR many generations, it was widely held in other areas that Southerners were somewhat lacking in business acumen and enterprise.

This was only partly true, if at all, because economic conditions held regional initiative and development in check. Still, it was the "shrewd Yankee trader," the "astute Wall Street financier," or the "efficient New England manufacturer" who were the symbol of business success.

Times have changed drastically, as was emphasized by Francis W. White, president of American Woolen Co., in an address before a Boston group.

He predicted a bleak outlook for woolen and worsted manufacturing in New England and said engineering studies prove that raw trading centers comparable to Boston could easily be established in Georgia or South Carolina.

One of his remarks is pertinent, significant and complimentary. "You will find Southern competition to be tough, fast and smart," he warned the Bostonians.

Those are pleasing words to Southern ears. Southerners wearied decades ago of being described in terms of "magnolias, colonels and juleps." For many years they have striven to stand on their own feet in all economic fields, and now they are succeeding.

Even warnings like that of Mr. White, which are designed to spur Eastern competition with the South, are an asset to Dixie. They indicate full recognition that this region has the resources, manpower, financial backing, and drive to produce on equal or superior terms with other sections.

The South still has some distance to go before it reaches economic parity with regions more favored in the past, but it will continue to progress because it is "tough, fast and smart."—*Florida Times-Union,* Jacksonville.

A Bitter Pill

A RECENT statement by Henry Ford, II, will probably not receive the attention among textile people which it should.

Mr. Ford's chief interest in the economics of the country is centered around the manufacture of automobiles. Even though the gentleman no doubt has a broad perspective and is sincerely interested in the over-all wel-

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The development by Ciba Research of the Cibalan line of dyestuffs has been the culmination of years of research to meet a widespread need of dyers for a group of colors which by simple and shorter application methods would produce very fast shades on wool without appreciable loss of the natural characteristics, resiliency and strength. While the research objective was primarily to develop a line of colors with exceptional light and wet fastness for wool, Ciba Research has extended the practical use of these "metal complex" dyestuffs to encompass nylon, silk and blends as well.

The **CIBALAN** *Colors*

The following original types represent the beginning of this interesting series . . .

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CIBALAN BORDEAUX 3BL
CIBALAN BLUE BL
CIBALAN GREY BL
CIBALAN GREY 2GL

With the practical needs of the dyer further in mind, the Cibalan line of dyestuffs were withheld until a range of 12 colors could be made available. The entire range of Cibalan colors are listed below.

THE CHEMISTRY OF CIBALAN COLORS

The Cibalan dyestuffs can be said to have happily combined in their chemical constitution, behavior in dyeing, and in certain of their properties, features which in a broad sense place the Cibalans between the Neolan and Chrome Fast dyestuffs. Like the Neolan colors, the Cibalan dyestuffs are "metal complex." This means that *in the dyestuff molecule* a metal is formed which produces a soluble-metal dye complex with an affinity for animal fibers. These complexes are extremely stable and are noted, above all, for their high resistance to sunlight exposure.

The union of metal to dye within the molecule makes it possible for fibers dyed with Cibalan dyes to be spun readily. This is a very apparent advantage over Chrome dyed wool where the building of the complex takes place *within* the fiber itself. With Cibalan dyes no fiber embrittlement occurs which means the fiber may be drawn and spun after dyeing into a more even yarn that is trouble-free in winding, knitting and weaving.

Some of the advantages offered by Cibalan dyestuffs are . . .

1. Light and wet fastness equal to Chrome colors but dyed by a shorter simpler procedure.
2. The simple neutral dyeing produces wool raw stock, with unusual loftiness and fiber strength. See if your carding room overseer does not agree.
3. Tippy wools and wools of various origins are dyed uniformly.
4. Cibalan dyed woolens are practically unaffected by chlorination shrink proof processes.
5. In blended fibers and fabrics the wool, nylon and silk components can now be dyed as fast to light as the cellulosic fibers with Chlorantine Fast types.
6. In the above blends Cibalan shades are unaffected by copper salt aftertreatment of the dyed cellulosic fibers.

For further details on Cibalan dyestuffs, address CIBA COMPANY, INC., *627 Greenwich Street, New York 14, N. Y., or contact the Ciba offices in Boston, Chicago, Charlotte, Providence, San Francisco or Philadelphia.*

fare of the nation, we must admit that his perspective is somewhat colored by his own individual experience and interests.

Mr. Ford's advocacy of free worldwide trade, which means the removal of all tariffs and other trade barriers, is no doubt prompted by a conviction that such a development would be of worldwide benefit.

If Mr. Ford's experience and interest were confined to the welfare of textiles, we feel quite sure that his attitude would be somewhat different. The automotive industry, as well as some of the other major industries in this country, have little to fear from foreign competition. In fact, the export business of the American automotive group is enormous and there is a good chance that a program such as Mr. Ford advocates would lead to an increase in exports of automobiles. On the other hand, the automotive group might find that their domestic sales would drop if such a free trade program were instituted, for we feel quite certain there would be fewer automobiles sold to people who now earn their living in textile manufacturing.

With unrestricted importation of textiles to this country, the thousands of people who now earn their living from the manufacture of fabrics would have less purchasing power; in fact, the entire textile industry would suffer drastically.

The textile mills in the United States cannot successfully compete with the major textile producing foreign countries. Our costs are appreciably higher and there is little that can be done about it. We may possess some technical advantage over some of the countries which lead to greater productivity per unit, but these advantages are offset many times by the much cheaper costs in such countries as Japan.

In considering this problem we cannot overlook the fact that a lot of other countries which previously were not in the textile manufacturing business on a substantial scale are now trying to develop their own textile industries. These countries have a greater abundance of labor and have potentialities of becoming extremely low-cost manufacturing nations.

With proper credit and other capital financial arrangements, they can purchase modern equipment which is available for sale to those countries by our own machinery manufacturers as well as machinery manufacturers in other countries such as England, Germany and even Japan.

This matter of free trade sounds good, but if it were to become a reality it would be a bitter pill for thousands of people in the United States who are dependent upon our textile industry for jobs. It is a matter that concerns not alone the stockholders and managers of our textile industries, but also, and to an even greater extent, the thousands who work in the mills. — *The Textorian,* Cone Mills Corp.

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Yes, NON-FLUID OIL is tops for Twister Lubrication, in fact more mills use genuine NON-FLUID OIL for this and every other phase of the textile lubrication than any other product.

However applied—by centralized system, finger, brush, or oil can—NON-FLUID OIL lubricates constantly and dependably, insuring longest life for rings and travelers. It stays on rings and off rails, giving cleaner yarn and fewer broken ends—which means increased production of perfect twist.

NON-FLUID OIL is particularly suitable for centralized method of application to rings, because it does not disintegrate under pressure—so that rings and travelers are supplied throughout the entire doff with a film of highest quality, cleanly lubricant.

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NON-FLUID OIL is not the name of a general class of lubricants, but is a specific product of our manufacture.

Tupelo And Chicago

SEVERAL weeks ago a man from North Dakota said he had been chased out of Tupelo, Miss., by hooded terrorists who called him a Yankee. Several pious newspapers, not all of them in the North, deplored this item of intolerance. Some of them indicted all the people of Tupelo, and by infer-

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Not sizing, O-W Lubekote is a plastic wax-like substance which is transferred to the warp after the warp is sized and dried.

Yarn coated with O-W Lubekote is proven, by actual mill production tests, to have far greater resistance to abrasion by the harness, reed, and shuttle than that obtained by any other method.

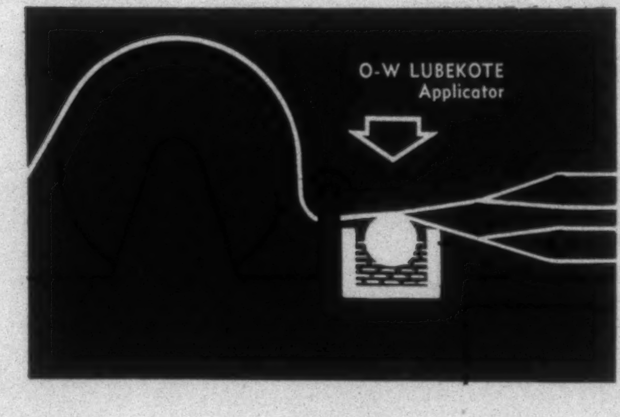
And because O-W Lubekote provides shuttle and box leather self-lubrication, picking and shuttle flight is greatly improved.

Use over any sizing on cotton and synthetic spuns—synthetic filament yarns, and without sizing on the higher twist filament yarns.

On cotton and synthetic spuns O-W Lubekote reduces end breakage, fly and shedding. Gouts, slubs pass through harness with far less hanging and breaking.

Particularly effective on seed, nub and slub novelty yarns.

On synthetic filament yarns O-W Lubekote reduces broken filaments, split ends and prevents floats — with no dirt pickup.



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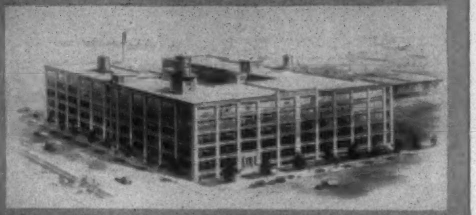

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ence all Southerners, for barbarous treatment of a fellow American.

The Tupelo story turned out, so far as we can establish, to have been a hoax. The North Dakotan couldn't back up his story and circumstances indicate he made it up. Apologies to Tupelo have been scarce if not completely absent.

Today we shall not fall into a similar error by criticizing the 3½ million people of Chicago for a fracas that cost the life of a man. It was a street brawl outside a barroom and it might have happened anywhere. It does, however, serve as a theme for certain observations.

The facts as reported by the Associated Press are these: Two men called three strangers from South Carolina "hillbillies." Bullets began to fly. A young stock clerk who went to Chicago from Spartanburg is dead. Four men, including a Chicago detective, were wounded.

The term "hillbilly" has been adopted as an epithet directed especially at Southern people. Let us look at the men who used it on the South Carolinians.

One is a soldier absent without leave. The other is a jailbird. He served a term in Joliet Penitentiary for armed robbery and will be questioned by police about several Chicago murders. The altercation started with a challenge against the South Carolinians' right to come to Chicago for work.

This killing is no hoax as the Tupelo story was. Will the critics who were quick to jump on the Mississippi town now hop on Chicago? Or will they brush off this violence on the theory that what happens to Southerners in the North is of little consequence?—*Charleston* (S. C.) *News and Courier.*

Pravda Attacks South

THE official Communist newspaper in Russia, *Pravda,* sent two correspondents through the Southern states of the United States. The South's a pretty bad place, they find. We Southerners, say the Russian correspondents, think we're the only real Americans. We call Northerners Damn Yankees—which some of us do, mostly in jest, just as the Damn Yankees call us the Bible Belt. The full details of just how bad Russian readers are told we are aren't available, except we're awfully bad.

The purpose of such articles is obvious. The Communist line is to divide and conquer, to create racial prejudice, to agitate minorities.

Come to think of it, the Russians aren't alone in this line of writing. The left-wing, so-called liberal magazines in America think we're pretty bad, too, and somehow overlook the slums and segregation of Harlem, Chicago, Detroit to single us out for distinction.

It looks like we who live and die and love it down here don't realize what a bad place it is. Maybe we need press agents.—*Dallas* (Tex.) *Morning News.*

Wider Cotton Markets

BESET by competition abroad and new synthetic fibers at home, America's cotton growers and processors are having to fight to keep their markets. Meeting in Dallas, the National Cotton Council of America is trying to lower trade barriers and to find new uses for cotton lint and seed. Recently it had a part in the doing away of discriminatory laws against margarine.

Cotton cloth, for most purposes, still has advantages over most of the competitors in its price range. It absorbs moisture better. It holds colors better. It has a soft feel that many prefer over the synthetics. Yet research should be able to find new uses for cotton and to improve its qualities for specific purposes. Putting science to work on this problem gives hope that cotton not only will retain its position but may regain some of the ground it has lost. —*Dallas* (Tex.) *Morning News.*

Communism does not drive out religion. It just occupies a place that has been vacated.—*Kingsport* (Tenn.) *Times.*

No one should try to do two things at once, and this includes women who put on weight and slacks at the same time.—*Ellaville* (Ga.) *Sun.*

If Patrick Henry thought taxation without representation was bad, he ought to see it with representation.—*Carlsbad* (N. M.) *Current-Argus.*

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. . . has been used successfully for years by leading mills everywhere and is no longer considered experimental.

Its added and consistent weight provides a shuttle 10% heavier than the usual dogwood or fibre covered shuttle, thus reducing "Throwing out" and the consequent breakage due to this action.

Duraweld . . . is Southern's trade name for shuttles made with dogwood centers having one or two sides of *Stehide* or *Compreg*. The two materials become an inseparable unit through an unusual action of molecular adhesion.

Stehide . . . is Southern's trade name for high density phenolic impregnated cloth laminate.

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Greatly strengthened side walls . . . Elimination of wood defects . . . Will not heat up . . . Use of less loom power due to greater weight . . . Resists splitting . . . Moisture proof in side walls. All of these plus many more advantages make the cost of Duraweld less over a period of time.

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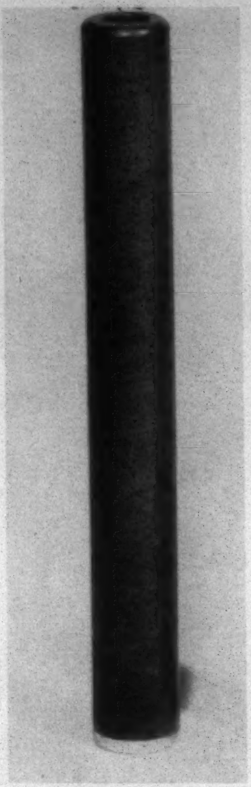

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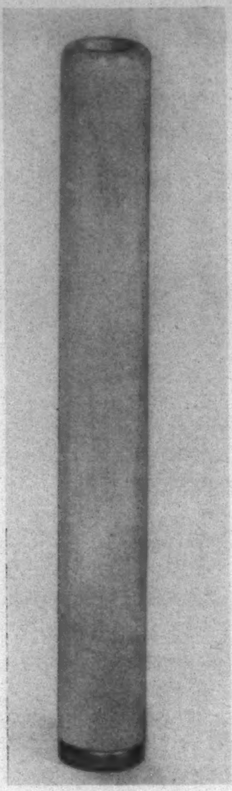

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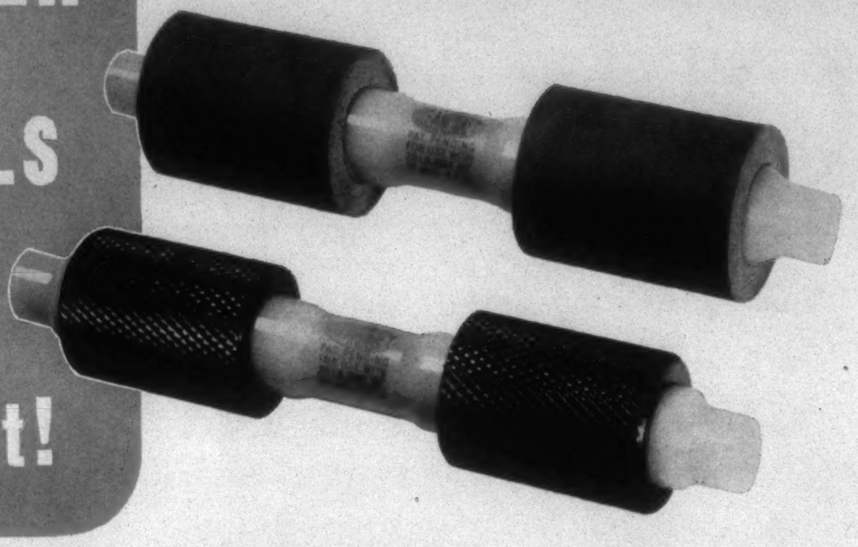

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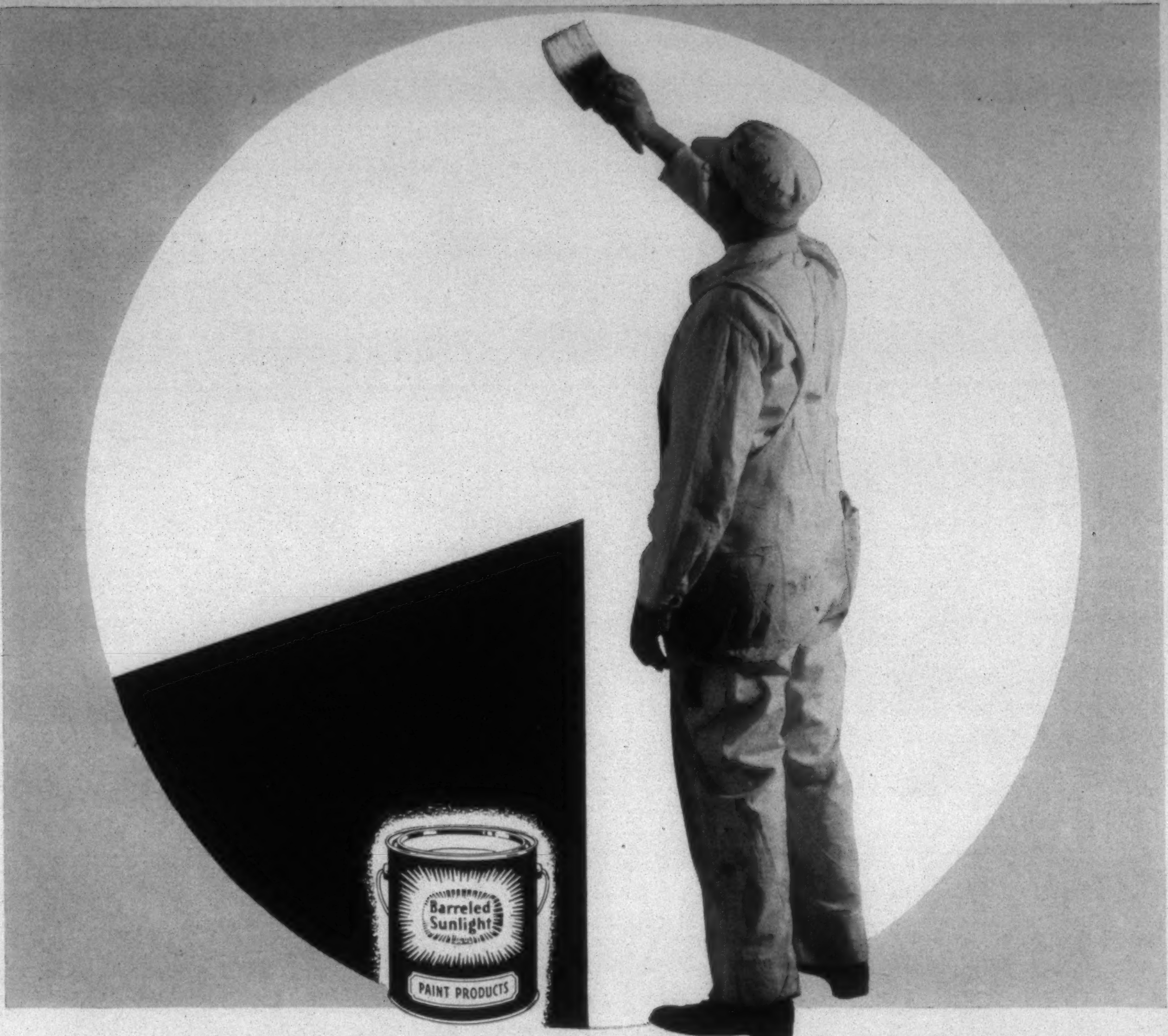

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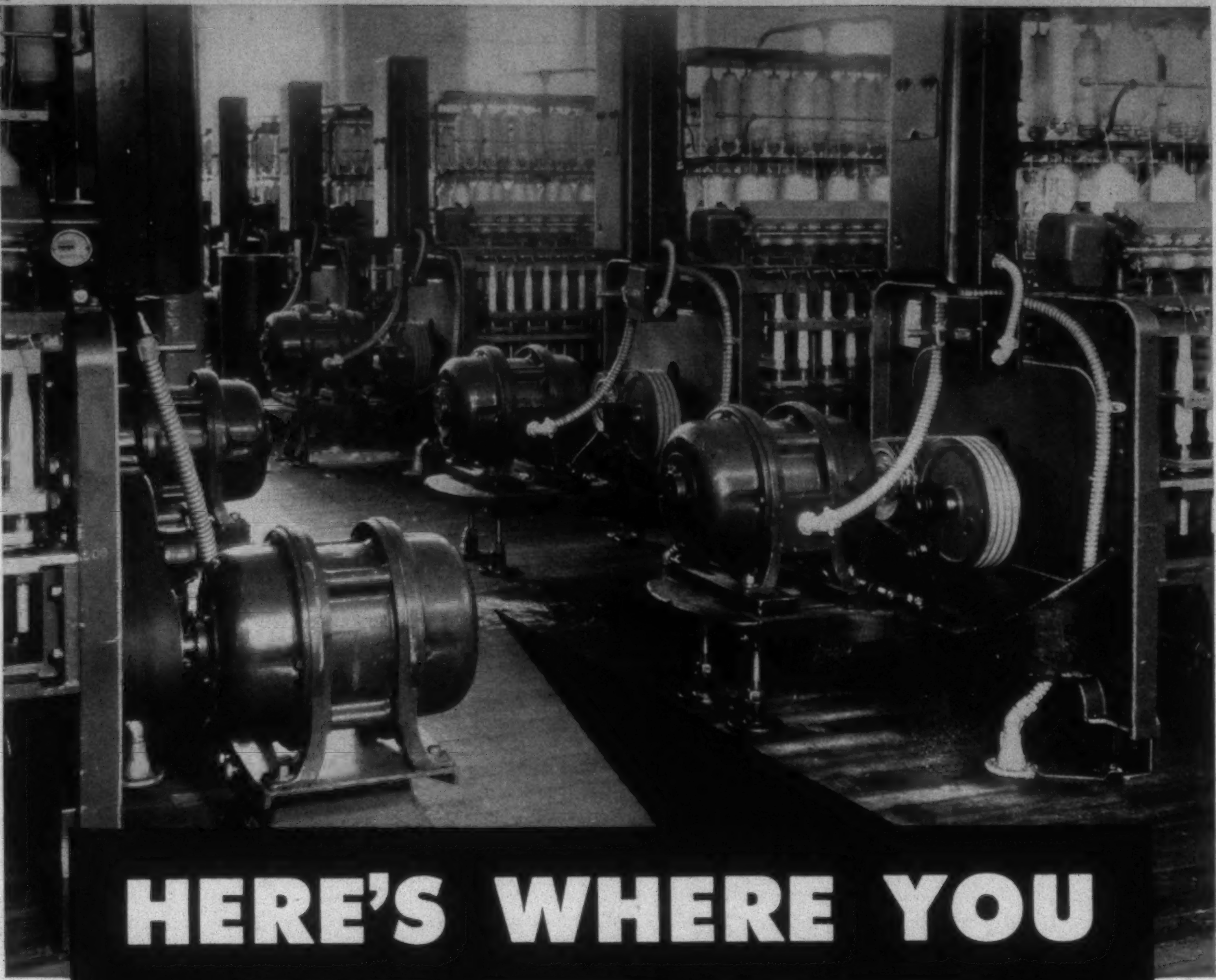

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textile bulletin

VOL. 79 MARCH 1953 NO. 3

The 1953 Cotton Research Clinic

GRAPHIC evidence that those who work with cotton in the textile industry can avail themselves, day by day, of much spade-work which furthers the natural advantages of the fiber and allows for less costly and more precise processing, was presented Feb. 18-20 during the 1953 Cotton Research Clinic at Savannah, Ga. During the three-day seminar, sponsored by the National Cotton Council of America, the current status of research previously reported was outlined and brand-new developments in processing machinery were described. In this and following columns are presented abstracts of 15 clinic papers.

HOW COTTON FIBER PROPERTIES AFFECT YARN BEHAVIOR

by Helmut Wakeham, Textile Research Institute

Fiber facts important to yarn behavior include the following: Cotton fibers are short and vary in length, hence twist is necessary to achieve transfer of stress from fiber to fiber in a long yarn, and the probability of finding fiber ends must be considered in explaining the local yarn strength. Individual fiber strength and elongation to break depend greatly upon the gauge length used in the test. Cotton fibers of any one length group vary greatly in strength and breaking elongation. Cotton fibers are crimped or kinky—they vary in the extension necessary to pull out the crimp; coarse or thick-walled fibers generally show more crimp extension than fine or thin-walled fibers, the crimp in fine fibers being more easily pulled out.

Bundle facts important to bundle strength interpretation include the following: Bundle strength depends upon gauge length (To a first approximation bundle properties are directly related to fiber properties; as the length of fiber between bundle clamps is increased both fiber and bundle strength decrease). Bundle strength also depends upon the variability of fiber elongation; fiber samples in which all fibers have nearly the same breaking elongation show relatively high bundle strength, and bundle strength is reduced if the fibers vary appreciably in breaking elongation, as cotton fibers do. Bundle strength is further reduced by variable fiber crimp and by the impossibility of having exactly the same length of fiber between the clamps for each fiber.

Yarn facts about optimum twist yarns include the following: Yarns are uneven with respect to local count; at least part of this unevenness is due to random fiber distribution. The local twist in the yarn follows the old spinner's rule of twist per inch multiplier times the square root of yarn count. Local yarn strength is only approximately related to local yarn count; the relation between count strength is almost non-existent in a poor yarn. Yarn strength by any method of measurement is much lower than the composite strength of the fibers at the point of break; part of this loss in strength is due to the fact that only 60 to 70 per cent of the fibers at the point of break are broken (most of the remaining fibers failing to break because they have ends very near the point of break), and most of the remaining strength loss is related to factors in staple yarn geometry.

FIBER STRENGTH AND EXTENSIBILITY AS MEASURED BY THE STELOMETER

by K. L. Hertel, University of Tennessee Agricultural Experiment Station

The tensile strength of cotton fibers has long been recognized as an important property of fibers. Tensile strength affects the processing performance of the fibers and is related to the strength of the yarn and final fabric. More recently, strength along with extensibility as given by the stress-strain curve has received considerable attention. A number of important parameters can be obtained from this stress-strain curve. Various methods have been employed for determining the tensile strength or the strength-extensibility property of cotton fibers. The Stelometer is the result of an attempt to develop an instrument that would be better controlled than the Pressley tester and that would give the breaking extension as well as the breaking strength.

It is a pendulum-type instrument with light-weight indicators that follow the position of the weight and stop at the point of break. Both rotate about the same fixed axis. The force indicator gives the angle that the pendulum makes with the vertical. The extension indicator magnifies that portion of the pendulum's motion that rep-

One of the sessions of the 1953 Cotton Research Clinic.

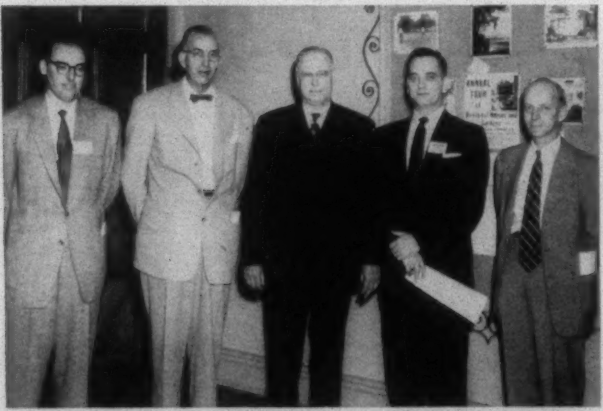
resents the jaw separation and is read with respect to the force indicator. In order that the indicators stop at break, the pendulum is mounted in a special way. It is mounted in a frame which rotates about an axis coincident with the indicator axis. Contrary to most pendulum instruments the pendulum axis itself moves through an arc while the pendulum bob remains about at the center of rotation of the frame. Pressley jaws are presently used to hold the sample. One of the Pressley jaws is held in a fork which is an extension of the pendulum above its axis of support. The other jaw is held in an extension of the rotating frame. As the pendulum and its supporting frame are rotated from the vertical toward the horizontal, the force tending to separate the two jaws is increased. The two indicators rotatable about the axis of rotation of the pendulum frame are actuated by the pendulum. If the fiber sample were inextensible, the indicators would rotate together at the same rate of speed as the frame. At break the pendulum suddenly would drop and disengage the small cams on the indicators. Friction stops the light indicators. For an actual extensible sample, the pendulum bob moves with respect to the frame and a component of this movement is magnified to give a measure of extension. Another component gives the proper correction for the force indicator. The force indicator must maintain a constant angle with that of the pendulum for all positions of the frame. So long as the pendulum moves slowly from its initial position it continues to push both indicators indicating the amount of force in the sample and the extension of the sample. If the jaws separate too rapidly, causing the pendulum to drop too fast, it loses contact with the indicators and they stop. This is the condition that happens at break.

The data presented thus far indicate the relations that exist within a cotton. Different cottons would be pretty well characterized by the tenacity at some specified gauge length, and the elongation. By observing the tenactiy and the stretch at two different nominal gauge lengths, it appears that one can arrive at values of these three characteristics. Two different breaks would be required to obtain these data. Consideration has already been given to means by which this could be done rapidly and satisfactorily in the ordinary laboratory.

EFFECT OF GAUGE LENGTH IN FIBER STRENGTH TESTS ON CORRELATION WITH YARN STRENGTHS

by Hugh M. Brown, Clemson College School of Textiles

In a project with U.S.D.A. the Clemson School of Textiles, using the Clemson flat bundle tester, measured the fiber strengths of 105 cottons at zero, two, four, six, and eight mm. gauge lengths and correlated the results with yarn strengths of the same cottons. For 75 of the cottons the yarns were run and skein tests made in U.S.D.A. laboratories. Single and yarn strengths were measured by the Clemson School of Textiles. The correlation between single end yarn strength and flat bundle fiber strength was higher for all of the longer gauge lengths than for so-called zero gauge length, being highest for two and four mm. For these gauge lengths the coefficients of correlation ranged from five to 27 per cent higher than for zero length for the several types and numbers of yarn.



Four men who "chopped cotton" to insure the clinic's 1953 research crop flank A. B. Emmert *(center)* of Dan River Mills. *Left to right:* George Buck of the National Cotton Council; Earl Heard of West Point Mfg. Co.; Mr. Emmert; Dent Mangum of the N.C.C.; and Walter Regnery of Joanna Mills.

The correlations for the skein strength favored the longer gauge lengths even more than in the single end breaks, the coefficients ranging from three to 49 per cent higher for two to four mm. gauge lengths than for zero length. The other 30 cottons were processed by the school in three twist multiple into 14s singles, 14/3 plied yarn and 14/3/3 cord. Flat bundle tests and single end tests were made as for the first 75 cottons. For all the different yarn types the coefficients of correlation for two and four mm. ranged slightly higher than for zero length.

From the tests it seems that the "equivalent gripping distance" on individual fibers in yarn breaks must be approximately three mm. and that measuring the fiber strength at the short lengths used in the Pressley test will incorrectly rank certain cottons in relation to their merit in yarns.

THE NEW CONCEPT IN OPENING AND PICKING

by Robert M. Jones and Robert S. Curley, Saco-Lowell Shops

From the beginning of mechanical handling of cotton fibers, the opening or separation of the cotton hairs and the removal of undesirable foreign matter has been a difficult problem. The cotton as cut from the seed by the gin saws is in a loose, fluffy condition ready for further processing. However, in order to transport this material economically it is compressed into hard bales and in recent years we have the high-density bale which not only compacts the cotton but all the impurities with it into a mass of about the specific gravity of a brick. From such a condition, the opener must restore the fibers to their original light, fluffy mass without injury to the delicate individual hairs less than 1/1000 in diameter and simultaneously remove the seed, hulls and neps and, now with machine-picked cotton, grass, sticks and other residue.

Most of this machine-picked cotton is dried in heating units before ginning. This has resulted in cotton containing a higher percentage of foreign material. In addition, included in the late crops are a large quantity of small pieces of seed coating with the full length fibers attached. These are small particles which are extremely difficult to remove during opening, picking and carding because of the long fibers adhering to the foreign material and the combination sometimes makes the particles lighter than the fiber itself. This light particle presents such a large area to the air stream that it will not fall out with the dirt but will be drawn along with the good fibers. At the same time, there seems to be some reduction in the amount of full-grown seeds which are taken out by the gins. There is also an increase in the amount of immature seeds with considerable growth of fiber attached; the latter being flat and soft do not permit the gin saws to cut the fiber from the seed. It is increasingly necessary to take these particles out before they are crushed between rolls, otherwise they will break up into innumerable seed coatings with attached fibers which spread through the finished work and make accurate drafting difficult if not impossible.

For some time, we have been advocating the use of more and more feeders to cut down the amount of cotton being fed through any one feeder. Likewise, we have recommended smaller quantities in the opening line and elimination of the over-feeding of pickers. It is impossible to get neps or foreign matter out of the center of a mass and it is our belief that it is best to try to reduce the particle size of the cotton as soon as possible after the bale is opened. In our research connected with this problem, we have endeavored to find a means of removing the foreign material without increasing the number of beaters in the opening line and in the pickers. We have found that it is desirable to decrease the speed of the beaters as much as possible and wherever possible to decrease the speed of the fans. With a reduction in beater speeds, we will have a more gentle action in opening the flocks of cotton fiber without twisting and knotting them up. It is very apparent that if we can completely disintegrate the bunches of cotton fiber, we will present a larger surface area to the air stream which will permit the cotton to float in the air stream with lower speeds and with substantially fewer eddy currents.

In our latest design of opening and picking machinery, the grid bars are completely removed. In place of these grids, we have several small-diameter, wire-covered rolls which revolve in the direction of air flow around the beater and with the points in the opposite direction to the flow. With this arrangement, the carding beater speeds may be lowered to 500 or 600 r.p.m. which give peripheral speeds from 2,000 to 2,700 feet per minute. To utilize

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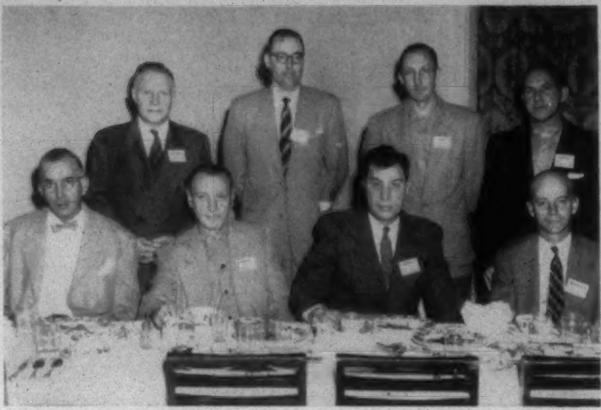

Among participants at the clinic were *(seated, left to right)*, M. Earl Heard, Walter M. Scott, assistant chief of the Bureau of Agricultural and Industrial Chemistry, U.S.D.A.; G. E. Hilbert, director of the B.A.I.C.; and Walter Regnery, vice-president of Joanna Cotton Mills. *Standing, left to right:* Dean Hugh Brown of Clemson; George Buck, technical director for the National Cotton Council; Leonard Smith of the council; and Milton Harris of Harris Research Laboratories.

these revolving grids and slow speeds the cotton must be sufficiently opened to permit the fiber to remain in the air stream which surrounds the beater. This is accomplished by placing another wire covered roll, which we call a "fringe roll," immediately below the feed roll. The fringe roll acts as an important adjunct to the beater where the fibers are held by the evener rolls and pedals, or by two feed rolls, as it helps the beater to pick the cotton cleanly. The fringe roll catches the cotton which escapes from the bite of the pedals and evener roll and holds these tufts for further reduction to minimize the possibility of these bunches passing forward to the bottom screen or to the bottom portion of the lap; either of which would contribute to the splitting of the lap or increase variation in lap evenness. With a fringe roll, the fringe of fibers coming from the feed rolls are brought up and forward into the path of the beater. As the fibers are prevented from accumulating, and as they are detached immediately from the fringe by the beater and carried to the screen section, the lap will be more resistant to splitting.

The revolving rolls covered with saw-toothed wire named Gyrogrids are so placed that heavy material struck by the beater will fall below the center of the roll and will drop out through the weak air stream. Any fiber will tend to cling to the wire round roll and is carried back into the path of the beater. With these rolls in conjunction with the fringe rolls, the cotton is completely freed of large bunches of fiber. Any fibers growing from immature seeds tend to be thrown out without breaking the seed and thus remove incipient seed coatings from the cotton. Because there are no large bunches remaining in the cotton, the speed of the fan can be brought down to the point where the cotton fibers will float in the air stream and up on the screen. By varying the fan speed the amount of cleaning can be controlled within close limits, lower fan speeds producing more fly and dirt, a method that is readily adaptable to different characters and grades of cotton. Because of the absence of bunches, the cotton tends to spread more evenly over the screens and therefore gives a better sheeting than was possible with the older methods. The resulting lap is therefore in a more nearly uniform condition from the top to the bottom of the lap with the cotton thoroughly bloomed. Because the immature seeds are removed before calendering, there are not so many oil spots and seed coatings in the resulting lap. Because the sheet is uniform and homogeneous from top to bottom, there is no tendency of the lap to split when it is rolled up on the calender. This method of picking, used in conjunction with the pneumatic rack control, results in a firmer and stronger lap than it has been possible to obtain previously.

A similar machine known as the Gyrostatic opener is used in the opening line. To receive an adequate blend and relatively uniform feed, four or more No. 7 feeders deliver the cotton on a feed table. From the feed table, the stock is delivered by a No. 11 condenser to a control feed chute which in turn deposits the cotton uniformly on the apron of the simple opener similar to the picker previously described. The opener has a 16-inch diameter beater, feed rolls, fringe roll and two or more gyro grids. Instead of collecting the cotton on cages it is delivered into a specially constructed exhaust outlet with air draft balancing controls. For the first time in an opening machine provision has been made to adjust the centrifugal forces of the beater by the centripetal forces of the inrushing air stream. The exhaust outlet is connected with a pipe line to the condenser feed of a lattice opener, which in turn feeds a distributor. Both the opener and picker are protected by patents granted and pending.

Thus, the entire opening and picking system consists only of F7 feeders, new Gyrostatic opener, lattice opener and the necessary feeding devices and condensers delivering the cotton to two or three F-2 pickers. Each picker has two 16-inch beaters with fringe rolls and revolving grids. The beater and fan speeds will vary with the type of cotton used and with the amount of cleaning required. Beater speeds of 500 to 750 r.p.m. have been found satisfactory. Fan speeds for Indian cotton with short fiber of heavy denier may require fan speeds up to 1,200 r.p.m. while for American and Egyptian cottons these speeds may be reduced to as low as 600 r.p.m.

Many different cottons have been run experimentally in our laboratory and a pilot installation is now being tested in a New England mill. At present, no equipment of this type is available for general sale, but we believe that the system described resulting in the complete disintegration of the bunches of fiber almost at the very start, combined with the relatively few beatings and these, at low beater speeds, will produce better opening, cleaner and more uniform laps and less degradation of cotton than any opening and picking system yet devised.

THE SHIRLEY OPENER

by Geoffrey Dakin, British Cotton Industry Research Association (The Shirley Institute)

What is required to clean cotton most effectively and efficiently is, in brief: a highly effective method of opening, using the fewest machines, with control over the liberated trash. That is what we believe we have got in the Shirley opener.

The essential conditions to be satisfied in the design of an efficient opening and cleaning machine are: (1) satisfactory feeding of the material to the opening device; (2) an opening device which achieves the maximum degree of fiber separation—ideally to the single-fiber state—without damage to staple; (3) means for cleaning, i.e., the rejection of trash and retention of lint; (4) collection of the opened and cleaned material in a form suitable for use at the next process.

A very high degree of openness is achieved on the Shirley opener. This gives the trash a chance of being rejected, which it cannot have if imprisoned within tufts or unopened cotton. We must do more, however, than give the trash a chance to escape; we must make sure as far as we can, that it is, in fact, rejected and the lint passed on. To obtain separation of the trash from the lint, we make use of their difference in buoyancy in an air stream. Although this difference in buoyancy for some of the trash particles is not very large, separation is assisted by two factors. First, the air stream into which the lint and trash are projected by the beater and is curved high-speed air stream. There is thus a high centrifugal acceleration acting on the particles which has the effect of segregating the trash and lint by spreading out their respective paths. Secondly, a "separation edge" and boundary sheet are used which skim off a controlled amount of the loaded air stream. All the material passing *outside* the separation edge is rejected and all passing *inside* is delivered. Control over the amount of droppings is obtained by varying the setting of the separation edge to the beater. The droppings are also affected by the length of the "free space," which needs to be carefully chosen, usually once and for all for the machine. The separation is, of course, not perfect. Some lint is dropped and some trash delivered.

For the method of cleaning adopted on the Shirley opener, which depends on the differential buoyancy of trash and lint in an air stream, a very high degree of opening is obviously vital to the success of the method. The effect of increasing the beater speed is to increase the air speed near the beater, thus increasing the centrifugal acceleration on the particles. This causes the particle tracks to spread out so that a clearer definition between delivered and rejected material becomes possible, hereby raising the cleaning efficiency. Finally, the shape of the separation edge is not critical, provided a fairly sharp edge is used.

We prefer to strip our beater pneumatically. Again, efficient stripping depends on the correct use and control of air currents, combined with a suitable "rake" of tooth on the beater. An air speed greater than that dragged around by the beater is desirable to

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insure effective stripping; this is achieved by an adequate total air output of the machine, combined with a divergent boundary sheet which runs below the beater from the separation edge to the bottom cage. A suitable "rake" of the beater teeth enables the fibers to slide off the teeth freely under the action of centrifugal force. The close-fitting beater cover used on conventional pickers is not suitable to the conditions on our opener. It leads to build-up of a high air pressure near the region of the feed system, due to the much greater volume of air dragged around by the beater and the effective seal produced by the stock being fed to the machine. This high pressure which has undesirable effects is avoided by the use of a suitable design of beater cover, such as is shown on the first slide. In fact, we usually refer to this as a "low-pressure" cover. Pneumatic stripping of the beater using this cover is highly efficient.

We considered the usefulness of the machine to the industry to be vastly improved by making it as a unit which could be fitted into an existing opening line. This is the form the Shirley opener now takes. Usually, for straight cotton spinning, a hopper feeder, conventional beater and lap end follow the opener. This insures that lap formation is entirely satisfactory, annd it also enables us to take advantage of the very open state of the material to remove as much dust as possible. To do this, we run the delivery cages at high speed so that only a thin film of opened cotton is drawn onto them and dust has ample opportunity of being sucked through the perforations of the cages. Delivery to the next process is in the form of loose cotton.

A NEW ROVING TWIST FORMULA

by James R. Corley, Southern Regional Research Laboratory

The textile industry has long recognized the need for a method of calculating twist to yield more precisely the same drafting resistance for rovings irrespective of hank or cotton fiber properties. The available twist formulas based on hank roving and staple length fail to meet this requirement, particularly when processing cottons of different fiber fineness values. The reported investigation of Fiori and Brown, *Textile Research Journal (21)* pp750-7 (1951) showed a significant influence of fiber fineness on the turns of twist required to obtain satisfactory roving. This work indicated that fiber fineness if taken into account together with length and hank roving would provide a more valid basis for determining the twist which should be inserted into rovings.

Relationships were established and the independent effects of fiber fineness, length and the hank (size) of the roving on twist were determined from three groups of rovings processed from carded cottons having as a variable only the property to be evaluated as follows: (1) For the fiber fineness twist relationship, four cottons of different degrees of fiber fineness were cut to a common length. (2) For the length-twist relationship a variety of long staple cotton was cut to four different upper half mean lengths. (3) For the hank of the roving twist relationship, an uncut widely-grown variety of cotton of average fiber fineness and length was used. The fiber properties of this cotton also provided the means for adjusting the fineness—and length-twist relationships developed from cut cottons to an uncut cotton basis.

The calculated slopes of the lines resulting from plotting hank rovings of each group against the turns of twist found to give the most satisfactory roving showed that the turns per inch varies (1) directly as the square root of fiber-fineness, (2) inversely as the length and (3) directly as the (hank roving). 2/3

When these relationship values were incorporated into an equation and the fineness and length-twist relationship values, based on cut cotton, were adjusted to an uncut basis a general equation resulted for determining the turns of twist required to obtain the same drafting qualities for rovings made from all cottons as follows:

$$Y = \frac{.50\ (F)^{1/2}\ (X)^{2/3}}{L}$$

where Y = turns of twist per inch
X = hank roving
F = Micronaire fineness (curvilinear scale)
L = classers' staple length

This formula has been used for more than 18 months to determine the turns of twist to insert in rovings processed at the Southern Regional Research Laboratory from cottons having widely different fiber properties. During this time rovings ranging from .50 to 10.00 hank have shown a more uniform level of drafting resistance, irrespective of fiber properties than could be obtained using twist calculated by other available formulas.

CORRELATION OF GAUGE LENGTH WITH FIBER AND YARN STRENGTH

by George W. Pfeiffenberger, Chicopee Mfg. Corp.

There has been considerable discussion of the validity of cotton fiber strength tests made at zero gauge length. Most investigators in this field have used Pressley jaws mounted on an IP-4 inclined plane tester. In the work reported here, the emphasis is primarily on the application of basic research to pilot plant and mill operation.

Cottons of five levels of fiber strength, from 72,000 to 90,000 pounds, were selected. Strength was the only variable. Each cotton was first spun separately, and then in a number of blends. From extensive tests, it was found that better correlation between fiber strength and yarn strength is obtained at zero gauge length than at gauge lengths of 2.5 mm. or 5.0 mm. This was true for both skein and sinble end yarn strengths. Using the formula developed in this work, blends to achieve any desired yarn strength can be made, and a constant strength from lot to lot maintained.

LINT CLEANING BY AIR

by A. L. Vandergriff, Lummus Cotton Gin Co.

The essential feature of the Super Jet cleaner is the intersection of two streams of air; one high-velocity stream carries the mixed lint and trash, the other changes the direction of the resultant combined stream, carrying the lint with it. The particles of greater mass than the lint continue in the direction of the high-velocity stream. The Super Jet cleaner should be located as early in the cleaning line as possible, since its efficiency is greatly reduced after the foreign matter is broken into smaller pieces and entangled with fibers. For quality work, the capacity of the Super Jet cleaner is a maximum of 800 pounds per hour.

In our research work considerable effort is being devoted to a study of this type of cleaning. We have recently made studies of the cleaner operating at velocities of about 15,000 feet per minute. This presented such problems as turbulence and excess energy required to change the direction of the lint fibers but we hope by our high-speed photography studies to overcome some of these difficulties. The improved efficiency of the second cleaner in the tandem arrangement has naturally aroused our interest in tandem arrangements using more than two cleaners. We have run tests on set-ups using as many as four openers and cleaners and the results were somewhat encouraging. However, in some of these tests on cotton which had been elaborately cleaned at the gin the fourth opener seemed to go beyond the upward break in the nep count curve. We are playing with an idea of assuming that the stock is properly opened after the second opener, in which case the cotton would be delivered directly from the Super Jet cleaner to the next without the opener and condenser between them. This idea will take some "doing" to work out but we find it an interesting challenge.

As a final work on the general cotton cleaning problem let us say that we are realizing more and more that the type of foreign matter

These were the discussion leaders at the 1953 Cotton Research Clinic. *Left to right*, Leonard Smith, director of the National Cotton Council utilization research division; Bernard R. Koenig, assistant co-ordinator of research at Philadelphia Textile Institute; Joe L. Delany, general superintendent of Joanna Cotton Mills; Earl Heard, vice-president and director of research for West Point Mfg. Co.; J. Rollins Jolly, general manager of the American Thread Co. Southern division; and Alfred H. Randall, vice-president of Alabama Mills Inc.

left in the cotton by a cleaner may be more important than the percentage left. If the remaining foreign matter is pulverized into fine particles and entangled in the lint fibers a great percentage of it will end up in the card web. Furthermore, machines which accomplish this pulverizing are also the machines which show the greatest fiber damage. It is only logical that if the action by a cleaning machine is severe enough to break up foreign matter into fine particles there will be fiber damage accordingly. We do not wish to convey the idea that we have machines which handle cotton mechanically without a certain amount of fiber breakage. We see much advertising of mechanical cleaners in which it is claimed that no fiber damage occurs and we are skeptical of such claims. Our experience has shown that when a fiber array is made on the stock before and after such a machine it shows a greater percentage of short fibers and smaller percentage of long fibers on the stock following the machine, which means that the percentage of fibers contributing to yarn strength are reduced by the machine. Of course the degree of fiber damage varies with the type of mechanical cleaning, thus it is important to consider first, what is the minimum mechanical handling necessary and second, what type will do the minimum fiber damage. We feel that lint cleaninng by air is the best approach.

SOME ASPECTS OF THE ENGINEERING DESIGN OF TEXTILES

by Walter J. Hamburger, Fabric Research Laboratories

The role of certain inherent fiber properties and geometric form factors of fibers, yarns and fabrics are considered as they may be modified to effect desirable changes in certain functional performance characteristics of cotton textiles. Three end-use requirements are selected as example: (a) drape; (b) crease resistance; and (c) ultimate strength.

The inherent properties shown to be of importance to (a) and (b) are the elastic characteristics at *low strains,* such as bending modulus, energy index of elasticity and deformation index of elasticity. Since these indices of elasticity are dependent upon the magnitude of the strain leved, the influence of geometric variables such as number of fibers, fiber moment of inertia and yarn radius are considered. In the case of (c) the elastic properties at *high strain levels* and their variability, as well as to form effects, is shown to be highly significant.

OPENING AND CLEANING COTTON BY MEANS OF ELECTROSTATIC ELECTRICITY

by Hugh M. Brown, Clemson College School of Textiles

This is a progressive report on a project with the U.S.D.A. in which the possibility of cleaning or processing cotton by means of electrostatic electricity was to be thoroughly explored. First, several fundamental properties of cotton and trash were to be measured in hope such information would aid in designing experimental machines to be built and tested in the later phases of the project.

By means of capacitance bridge and special condenser, the dielectric constant and dissipation factor were measured at 200 KC for seven cottons and several types of trash. The dielectric constants for the cottons ranged from three to five which agreed fairly well with values found by Balls. Cotton and trash gave quite different values for dielectric constant and dissipation factor for air-cotton mixture of equal mass.

Tribo-electric effects were measured for four cottons and several kinds of trash by rubbing the specimens with a large number of materials such as glass, Lucite, Bakelite, Polystyrene, roll covering materials, etc. A means was designed to automatically rub all specimens with the same pressure and velocity to give comparable results. Considerable difference between trash and cotton were observed.

Voltages produced by rubbing with the same materials were measured by the Hayeh Chromey method where specimens mounted on a wheel pass under the rubbing material on one side and under the grid of a detector tube on the other side arranged to produce pulses on an oscilloscope. By comparison with pulses from a known voltage, it was shown that potentials ranging to 5,000 volts could be produced on both cottons and trash.

Many experiments were made on opening and cleaning cotton by working it between charged grids by means of combs on long handles. Though rather large forces could be produced on the cotton by a field of 16,000 volts per inch, little cleaning resulted since polarization seemed to make the trash cling to the cotton like iron fillings to nails when lifted with a magnet.

A machine having charged concentric grids, one rotating inside the other, failed to clean cotton even when various forms of teeth and bars mounted on the cylinders to pull or beat the cotton in the field between the cylinders. A picker-type machine employing a strong field between the feed rolls and an insulated beater removed 1.5 per cent trash, which was about the same as with no field. The project seems by no means hopeless and many more experimental arrangements are to be tried.

THE OPENING AND BLENDING OF COTTON AND OTHER FIBERS

by William A. Hunter, T.M.M. (Research) Ltd.

The approach to the problem of opening and blending commenced soon after the end of World War II when the volume and variety of man-made fibers showed signs of rapid extension and it quickly became most evident that, in order to achieve adequate pre-treatment and blending of these newer fibers, a new technique was required. No longer would the slightly modified existing line of opening and picking machines be capable of providing that intimate mixing of the fibers becoming available—an improvisation which was obviously becoming out-of-date—and machinery specifically designed for the job was a necessity.

It was therefore on the wave of regenerated and synthetic fibers that we embarked in quest of a means of securing a blend which would be as intimate as practicably possible, at the earliest possible stage of processing. The most obvious field in which to commence our exploration was in the processing of spun dyed rayon, where the mixing of certain primary colors together, or with ordinary white matt or bright viscose, or with acetate fibers, to obtain a wide variety of colors and shades of color, demanded the most careful attention if the blend was to be "on shade." With the processing of colored fibers, or fibers in blend to give cross-dyeing effects, the inadequacy of conventional methods is quickly perceived and the importance of this defect has attracted the attention of a number of technologists and textile machinery manufacturers who have applied themselves, in their several ways, to the solution of the problem.

What applies in the case of blending spun-dyed rayon or any of the synthetic fibers, applies equally to the blending of cottons, except that in the latter case defects in blending are not very apparent until a much later stage of processing is reached, when end breakage rates increase, or there is a drop in yarn strength or the count range begins to show excessive variation.

If we are to employ short-cut processes with success, attention to the accurate performance of each stage of processing is essential, for the margin of safety has been narrowed considerably by the elimination of duplication which undoubtedly has the effect of making many errors. Therefore, we must first of all look at the condition of the lap put up behind the card.

Are we satisfied that the fibers in every lap of a given mixing are so intimately mingled that a sample taken from any part of any lap would register the same effective length of staple, the same percentage of short fiber, or the same immaturity count? My experience is in the negative. This intimate mingling—this blending, be it of cotton, rayons or synthetics, depends upon one factor, the breakdown of the masses of compressed fibers into the most minute tufts possible, bringing the material to what may be termed an almost fluid state by which means, fiber to fiber to fiber intimacy among the constituents of the blend required can be achieved. This idea of reducing the stock to a "fluid" state, without damage to the material, even when fed in bulk, meant a departure from the conventional method of opening cotton.

We have never been satisfied with the material as delivered from the conventional bale opener or hopper feeder, regardless of what type of evener means was used, whether rotary stripper, spiked lattice or comb. If set close enough to bring the masses down even to reasonable size, these eveners interfere with the production of the machine. The principle of combining the mass by means of a spiked lattice had much to commend it, and this principle has been embodied in a machine in which the stock is fed into the creeper lattice, through a feed system, and intensively combed without

Men who buy cotton for Southern mills were on hand at Savannah. ***Left to right,*** **M. J. Florence of Riegel Textile Corp., Trion, Ga.; B. O. Creekmore of Riegel Textile, Ware Shoals, S. C.; R. B. Horsley of Pepperell Mfg. Co.; D. W. Anderson of Alice Mfg. Co.; A. W. Fisher of Cannon Mills; and H. E. Russell of Glenwood Mills.**

damage to the staple. The uniformly opened material is ejected into the mouthpiece and conveyed to the next machine of the sequence blender.

The attachment of this high degree of uniform opening at an early stage of processing suggested the possibilities for metering this homogeneous material, as one would for example, meter grain or similar materials within close limits of accuracy, thereby ensuring absolute control of a desired blend. Metering usually implies measurement of volume of liquids, gases, etc., where the density per unit volume is constant, and therefore with fibrous material reduced to uniform density by the disintegration of pressed masses to tufts of virtually uniform small size, it has been found possible to so control the delivery of such material within a very narrow margin of error, around 0.6 per cent and to accommodate the variations arising from the specific gravity of the several types of fibers which it may be desired to blend.

The blending machine may, for example, contain four units each receiving the well-opened stock from its corresponding lattice (in the English sense) opener, the delivery from each unit being controlled by vari-speed drive, according to requirements. It will be appreciated that cotton in this finely opened state will not only blend more intimately but can be more readily freed of its trash content, and will require fewer beating points than are usually found on the more conventional equipment. These new machines will have a marked effect upon the layout of the opening room of the future and will help to minimize the over-beating, now so lamentably prevalent in an effort to achieve maximum trash extraction and incidentally, will reduce nepping, curling an stringing.

MILL EXPERIENCE WITH SPEEDED-UP CARDING

by William A. Newell, North Carolina State College School of Textiles

Of 32 mills which have tried the North Carolina State College School of Textiles' recommendations for nep reduction, 21 (or 65.5 per cent) have obtained favorable results, eight (or 25 per cent) have obtained unfavorable results, and three mills were still experimenting at the time of the most recent survey. Ten of the mills which have reported favorable results are in North Carolina, seven in South Carolina, two in Georgia, and one each in Alabama and South Carolina. Cottons processed ranged from one-inch strict good ordinary to 1¼-inch M Leaf American, 1 7/16-inch Egyptian fully good to extra. Yarns spun ranged from 10s to 60/2. Twelve of the mills reported production increases averaging 56.41 per cent. Eleven of the plants reported a decrease in neps, the percentage averaging 21.41. Eight mills reported yarn quality improvements.

Remarks from mill supervisors who had favorable results with the N. C. State recommendations are as follows: Entire mill on recommended speed and settings. . . . Cancelled planning for $45,000 worth of new carding equipment. . . . Neps reduced 21 per cent. . . . Lickerin speed raised from 400 to 735 r.p.m., getting cleaner yarn and better break. . . . Almost 400 cards operating on new speeds and settings. . . . Have installed 15-inch sliver cans. . . . We are convinced that the recommendations contained in your report have real merit and are working toward putting them into effect in all our cotton-processing departments. . . . We think this is a most constructive report and plan to do further experimenting using this report as a guilde.

SOME FUNDAMENTALS IN OPENING AND PICKING RESEARCH

by Peter M. Strang, Whitin Machine Works

Opening and picking equipment may be considered to do five things: (1) it progressively reduces the size of the pieces of cotton in process, (2) it removes waste and trash, (3) it blooms the stock, (4) it blends different bales of cotton to give a more uniform product and (5) it prepares cotton in lap form for carding. A scientific analysis of the first three phases is a dirty, tedious task while the fourth and fifth phases may be judged in a practical manner by observing the way the spinning room operates and by weighing the laps.

At times skepticism is expressed as to whether the machines in an opening line are arranged in the most advantageous order, but the sequence of these units has been established by trial and error over a long period of time in many mills. It is not practical to consider changing the order of such cumbersome machines as the vertical opener and the downstroke cleaner in a plant. While the effectiveness of these units may be compared to a certain extent by the percentage of waste each removes from the total weight of cotton fed, comparisons of this kind require qualification. For example, if two machines in sequence in an opening line remove the same percentage weight of trash, when judging the comparative effectiveness of the units, consideration must be made of the fact that the second machine had to process stock which contained a smaller reservoir of waste than was present at the first unit. Consequently the two machines may not be equally efficient although the percentage weight of material removed is the same.

A survey indicates that opening and picking is largely a series of repetitive operations. A sheet of cotton composed of small pieces is fed to a beater which tears the mass of cotton presented to it into smaller pieces and removes some of the dirt. A current of air then transports the cotton to a condenser where it is again formed into a sheet. This treatment is repeated at each beater. It appears reasonable that at each beater pieces of leaf and trash are broken into smaller pieces, some of which continue with the cotton to the next beater. The air which conveys the stock will tend to distribute throughout the cotton any dirt remaining in the stream. The removal of dirt and the tearing of the cotton into smaller pieces occur simultaneously in present equipment.

As a means of classifying and comparing the leaf and trash in the droppings from the different beaters, apparatus was assembled which would furnish a vertical stream of air of known velocity in a three-inch orifice. The apparatus was constructed so that a range of velocities could be obtained. Since the air stream was vertical, when leaf and trash from droppings were introduced into the stream, the pieces having an air drag greater than that caused by the stream would fall through the stream and be collected. The pieces of leaf and trash having an air drag equal or less than that caused by the stream would be blown away.

In order to compare the types of leaf and trash removed by the different beaters, samples were carefully separated and weighed. Each sample of waste was then introduced into an air stream of lowest velocity. The fine trash would be blown away and the waste which fell through the stream was collected and weighed. The amount remaining after passing through the stream of low velocity was then introduced into a stream of higher velocity and the procedure was repeated. In this way the leaf and trash from each beater could be classified and compared in percentages by weight. Curves show the classification of waste from a three-blade beater, a Kirschner beater and a lickerin.

The curves indicate that the amount of fine trash increases progressively with the number of beaters involved in the processing of stock. Each successive beater appears to pulverize some trash which is carried forward with the cotton. The apparatus used to classify

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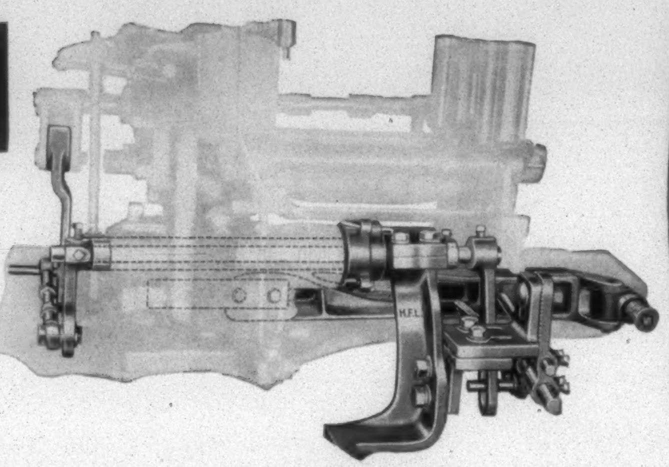

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the trash in beater droppings was also used in determining the minimum velocity of the air stream required to transport cotton. It is axiomatic that the velocity of an air stream which will convey cotton aggregates must be greater than that of a minimum flow which will float the aggregates.

The conclusion may be drawn that an air stream is not selective with reference to the transportation of cotton and much of the leaf and trash normally in that cotton. In other words, air velocities which are necessary to convey cotton are of sufficient magnitude to carry also much of the leaf and trash whose removal is one of the objectives of opening and picking equipment.

THE EFFECTS OF STORAGE AND GIN DRYING TEMPERATURE ON THE SPINNING QUALITY OF 'GREEN' NEW-CROP COTTON

by Jack Compton, Institute of Textile Technology

The work to be reported is concerned with the effect of (a) storage of freshly-opened (green) cotton (DPL-15, 1951 crop), ginned with gin drying temperatures both lower and higher than normally employed, as baled lint, and (b) storage of freshly-opened seed cotton prior to ginning, but subsequently ginned after gin drying at a temperature lower than normal, on spinnability and other properties of commercial importance. Cotton picked from the same field at the height of the season and ginned after low temperature gin drying, served as the control.

As a result of this investigation, the following conclusions can be drawn from data obtained: (1) Storage alone has no apparent effect on fiber length array, uniformity ration, and strength of "green" new crop cotton. (2) A slight decrease in staple length array, a slight increase in irregularity of fiber length, and no effect on fiber strength, drag, or stiffness occurred as a result of the use of excessive heat during gin drying of "green" new crop cotton. (3) Neither the storage of "green" new crop cotton or the gin drying temperature has a significant effect in the percentage of mill waste. (4) A trend toward a decrease in neps in the card web with storage was found, but no effect was noted as being due to the use of an excessive gin drying temperature. (5) Storage of "green" new crop cotton for two to three months after picking as baled ginned lint results in a definite decrease in ends down during spinning when low and high temperature gin drying conditions were employed, whereas no significant difference was found in spinnability of low and high temperature gin dried cotton. (6) Storage of seed cotton prior to ginning at a low gin drying temperature, and subsequently spun without further storage in the bale, showed a decrease in ends down in comparison with unstored cotton. (7) A trend toward a decrease in yarn skein break factor with storage of low temperature gin dried cotton seems to exist which is not evident with yarns prepared from high temperature gin dried cotton. (8) A comparison of the single end and skein strengths of 30s warp yarn (22.3 TPI) prepared from high temperature gin dried "green" new crop cotton with that gin dried at a low temperature indicates that the former is greater than the latter. On the other hand, the corresponding 42s filling yarn (23.0 TPI) data indicated that the low temperature gin dried cotton gave a stronger yarn. (9) The per cent non-uniformity (per cent NU) of both warp and filling yarn spun from high temperature gin dried "green" cotton was greater than for low temperature gin dried cotton. (10) Numerous physical and chemical tests made on the variously processed cottons, failed to show the cause for the decrease in ends down during spinning resulting from either bale or seed cotton storage.

In summary, it may be stated that the poor initial spinnability of new crop cotton can be overcome by storage for a period of two to three months after picking, either as seed or bale cotton. The cause for the spinnability behavior of new crop cotton is thus ascribed to changes occurring in the fiber during storage which have yet to be measured. No significant decrease in spinnability of new crop cotton results from gin drying at the recommended operating temperature, or slightly above. However, fiber tests indicate that the use of excessive gin drying temperatures may be detrimental to both fiber length and strength.

PROGRESS REPORT ON CLEANING RESEARCH AT S.R.R.L.

by Ralph A. Rusca, Southern Regional Research Laboratory

The S.R.R.L. cotton opener was publicly announced for the first time at the 1951 Cotton Research Clinic. The studies to date have been of a somewhat fundamental nature, and have included work on the effect of sharp-pointed projections on the physical properties of cotton fibers, and on the effect of the geometrical configuration of grid bars and screens on fiber properties and cleaning efficiencies.

At West Boylston Mfg. Co. use of the opener resulted in less spinnable fiber in waste, a decrease of from 14.3 to 20.7 per cent reported on different cottons. In West Boylston yarn, a decrease in ends down was reported and opening and picking data revealed ten per cent less spinnable fiber in waste.

In carding, less fly was reported and a decrease in neps noted. Joanna Cotton Mills reported that by using the cleaner a savings of $24,400 per year on cotton alone results from the reduction in waste.

Production rate of 3,000 pounds per hour has been attained. In cleaning, it was averaged taking 22 per cent of the waste with less than five per cent lint in the waste. We hope to attain 50 per cent trash removal in a single machine. The percentage now is between 20 and 30.

Life Among English Textile Workers

By WILLIAM HAYS SIMPSON—Part Two

THE British cotton industry received about $110,000,000 worth of raw materials and machinery under the Marshall Plan in 1949 to aid in keeping Lancashire mills at work. But the mills were not in full production, the weaving and spinning rooms operating at about 75 per cent of capacity. To a large extent this was due to the shortage of labor. Many workers who had gone to other industries during the war period did not return because of better pay elsewhere and the leaving-school age had been increased to 15 thus eliminating many boys and girls from employment. Older persons were not attracted to textile work because of past depressions in the industry and because of the dirt in the mills.

Many concerns therefore began modernization aimed to improve the efficiency and appearance of their mills. New machinery, air conditioning, rearrangement of machinery, landscaping of mill grounds tended to give the industry a lift in the eyes of many potential workers.

In an effort to educate the residents of the area regarding the use made of dress material style shows were held on numerous occasions in town halls, usually on Saturdays, so the working people could attend. Displays of all types of cotton material showing its many uses were common in Lancashire towns and the importance of these articles in world trade was emphasized upon all the people. Illustrated pamphlets prepared and published by the Recruitment and Training Department of the Cotton Board ably depicted the careers open to boys and girls in the cotton industry and presented attractive work scenes in various departments of cotton mills.

A program of study was formulated for the youthful workers between 15 and 18 years old which would not only give them instruction in textile work but also in other studies. Thus juvenile workers were introduced in some mills to continuation schools which they attended for two one-half days a week, usually on Monday morning and Wednesday afternoons. All students are taught social studies, arithmetic, English; the girls are instructed in cooking and sewing, the boys in carpentry. While the government pays the teachers, their salaries are often supplemented by the mill management. Young employees are paid their regular wages while attending these classes.

Other educational and some social advantages are offered young employees and in certain mills those under 16 pay half-price for their dinners.

To attract and keep employees who are mothers, nurseries have been established by a number of mills. The nurseries are built in accordance to specifications of the Ministry of Health and are subject to its supervision.

For example let's consider a nursery in a mill near Manchester which was established in 1948. This nursery has a capacity of 41 children, 15 of whom may be between one and two years old and 26 between two and five years of age. The Ministry of Health regulates this number according to the size of the building and the staff. The staff in this instance totaled eight, of whom one, the staff-matron, must be a registered nurse. Also included was a deputy matron who can qualify as a student or assistant nurse, and a nursery nurse who is required to hold a child care certificate. The other five members of the staff are required to be of good character and able to care for and supervise children not over five years of age.

Children may be left at the nursery by their mothers when they go to work at the mill at 7:30 a.m. and may be picked up at 5:30 p.m. The first five days are free, thereafter a charge of one shilling a day is made or half a shilling for a half-day for each child.

This charge hardly cares for cost of food, for the children receive three meals a day, breakfast, dinner and tea. For breakfast they are given a cereal or porridge, bread, butter, bacon and cocoa; for dinner meat, potatoes, an additional vegetable, dessert and a beverage; for tea, milk custard, bread and jelly.

This nursery is equipped with two toilets and two wash basins for babies and two toilets and six wash basins for the older children. There are baby beds and cots for sleeping periods and the mill supplies the diapers used at the nursery. A playground area equipped with rocking horses, slides, etc., is available to the children with, of course, supervised play. Each child is given cod liver oil, orange juice and milk daily, paid for by the government, but the doctor who calls daily is paid by the mill.

In 1949 and 1950 some mills arranged work so mothers could work at odd and irregular hours during the day but the recent recession in cotton manufacturing eliminated such arrangements. Some nurseries were closed, too, but others were still in operation in the Summer of 1952.

Another source of labor for this understaffed industry was the European volunteer workers and after some debate the cotton trade unions and employers agreed that these displaced persons could be brought into the industry.

The Ministry of Labor was responsible for arranging transportation of the European volunteer workers from the Continent to the employment areas. All workers were given medical examinations, registered by the appropriate civilian authorities and issued ration books, identity cards and police certificates of registration. Essential clothing, drawn mainly from government surplus stocks, was provided each worker. The ministry also endeavored to care for the spiritual and educational development of these people.[7]

Between 1947 and 1950 the cotton industry received 10,500 European workers of 15 nationalities. These included 7,000 people of many nationalities from displaced persons' camps in Germany and Austria, 2,000 unemployed Austrian girls recruited in 1947 for a limited period and 2,000 members of the Polish Resettlement Corps who had served with the Polish army in England. If the Poles are excepted about 90 per cent of these workers were women and girls. Though many of Lancashire's textile operatives are of Irish origin, an attempt to recruit Irish labor was not successful, for of the 1,000 to 2,000 Irish girls who arrived in Lancashire during this period other employment proved more attractive to them.

Approximately 80 firms have their own hotels which accommodated about 1,800 foreign workers. Some of these afford better living quarters than those enjoyed by Lancashire workers and at reasonable prices. For example, one mill charges 25 shillings for room and board a week which includes two meals a day for five days and three meals on Saturdays and Sundays. The remainder were housed in private homes or in government hotels.

Some of the Europeans were skilled operatives and were immediately put in charge of machines or appointed instructors to beginners. Where possible beginners were taught by instructors of their own nationalities. A government training center was established at Oldham, but as this center could handle only a limited number of Europeans, individual mills instituted the government vocational training schemes. This program called for systematic training for about three months with the government paying trainee rates and allowances. A few mills simply placed the European alongside skilled workers where they learned how to operate the machines.

As conditions of hours and wages are far better than the displaced workers knew on the Continent they appear well satisfied in their new environment. In general, management has praised the work of these employees but at the same time expressed concern over social problems which arise relative to them.

The Mill Village

The early cotton mills in England, as in the United States, were built at places where water power was available. Then because of lack of adequate transportation it was necessary for many mills to construct homes for operatives in order to be assured of a sufficient number of workers to operate the mill. Some idea of the problems which confronted early mill owners may be gotten from a letter written by Samuel Greg to a friend in January, 1835.[8] In this communication Mr. Greg explained how he bought an old mill, with a worn out water wheel and 50 nearby cottages, in 1832. It took two years to make the necessary repairs, install the machinery and collect suitable employees. An effort was made to find respectable families "who would make themselves a home and lose the migratory spirit which is one of the peculiar characteristics of the manufacturing population." To give them "innocent occupation" for their leisure hours, the management divided three fields into small garden plots for the operatives. The families also had flower gardens either in front of or behind their houses.

Two years later, the population having grown considerably, Mr. Greg thought it was time to establish a Sunday school. Meetings were first held in a cellar and as the number grew the girls were provided with a new building and the cellar was left to the boys who later moved to a new room. By this time 160 girls and 120 boys were enrolled in the Sunday school. The success of the Sunday school was attributed to the superintendent who was one of the mill's dressers who "labored in the ranks as the lowest of fellows but on Sunday this worthy man assumes his long black clerical coat, puts on a broad beaver, grasps his walking-cane and is at once metamorphosed into a Methodist minister, a superintendent of the Sunday school, a spiritual friend and pastor among his neighbors and the most important and honored man in our whole community."

A playground was made near the mill where quoits, cricket and other games were played but the boys and girls generally played separately.

Drawing classes were started in 1834 and met on Saturday evenings from 6 to 7:30 during the Winter. About one half the time was spent on drawing and the rest on geography or natural history. This time was spent on the playground in the Summer. A singing class met at the end of the drawing class and lasted until 9 o'clock. This was a very active group and it was considered a privilege to be included in its membership.

About 30 evening parties were held in the community during the Winter. These, Mr. Greg felt, "were effectual in civilizing the manners of the people." Great care was taken to invite any family that was tolerably respectable, especially if they attended Sunday school. This test when applied eliminated a good many persons, for of the 300 employed in the mill and who lived in the village, only about 160 were considered eligible guests. The parties were held in the school room and after tea was served games such as piecing maps or pictures, chess, draughts and building houses of cards were engaged in. Some group singing was enjoyed before the parties ended shortly after 9 o'clock. It was customary, however, for the boys and girls to sit at different tables at tea but they joined ranks in games.

Mr. Greg was rather proud of the warm baths he introduced in his village. By adding a small room to the back of his mill he was able to install seven baths. Cold water was piped from a cistern above the engine house while the hot water was piped in from a large tub which received waste steam from the dressing room. Men and women bathed on alternate days. The baths cost a penny each but a subscription of a shilling a month entitled the subscriber to a maximum of five baths a week.

The Order of the Silver Cross was later established for girls over 17 years of age. Membership in this organization was a distinct mark of superiority of character and was a step in humanizing the sterner part of the people of the community.

Through the establishment of this community of between 70 and 80 families, Mr. Greg felt that he had obtained a fixed and settled population, from which he obtained his workers. The added activities made work in the mill more pleasant and life in the community more attractive.

Today this mill village is gone and the nearby unsettled area of the early period is heavily populated. And also today all the cotton mill villages, as such, of England have disappeared. True, some mills own houses, one more than 250 dwellings, but that is an exception. No cotton mill communities operate as do many of the villages in our Southern states—all are parts of larger communities in Lancashire. The close social, economic and religious relationship of a century ago, as described above, no longer exists. But there is a common feeling of kinship between the em-

THE 17-MILL TEST meeting held on the campus of Alabama Polytechnic Institute was one of several conducted at textile centers under joint sponsorship of the Institute of Textile Technology and the American Cotton Manufacturers Institute. Appearing on the program at Auburn were *(left to right)* Cleveland L. Adams, head of the Auburn School of Textiles; Dr. T. L. W. Bailey of I.T.T., and John T. Wigington, director of technical service for A.C.M.I.

An extra feature of the meeting at Auburn Feb. 12 was the initiation of three Alabama mill executives as honorary members of Phi Psi textile fraternity. In the picture *at right* are M. Earl Heard, national president of Phi Psi; Initiates Hamp Morris III (president of Geneva Cotton Mills), Erwin Lehmann (vice-president of West Point Mfg. Co.) and A. D. Elliott (vice-president of Huntsville Mfg. Co.); and the president of the Auburn chapter of Phi Psi, Bruce Williams of LaGrange, Ga. Mr. Wigington is executive secretary of Phi Psi, which is celebrating its 50th anniversary.

ployers and employees, each having a high regard for the other's feelings.

The rent charged for company-owned houses is neither appreciably higher or lower than rents charged in similar houses in other like sections of the cities or towns. And as a rather rigid rent control law has been enforced in England for some years it is unlikely that charges will soon be increased on rental property. Furthermore, when an operative, living in a dwelling owned by a cotton mill, changes his job he cannot be asked to vacate the house. Of 295 houses owned by one mill there were, in 1950, 106 dwellings occupied by families, no members of which worked in the mill. The management makes all repairs to the dwellings, many of which are between 50 and 150 years old, but in spite of their age they are in surprisingly good condition.

The houses, in a typical workingman's community, are built wall-to-wall, thus affording no side outlets. Some of the less desirable homes are also built back-to-back with only a front entrance. Under such circumstances the families have the disadvantage of less light and ventilation, but because of the larger closed areas they have the advantage of warmer homes. All houses border on the sidewalk with an occasional single cut stone step in front of the dwelling. This step is often well worn from years of constant use but it is not only always very clean but is often highly polished. It is a daily practice of the Lancashire women to not only wash and polish this stone step but also to wash the sidewalk in front of their homes. This they do on their knees with wash rags, contending that "one can never get a place clean with a mop."

Their houses are built of brick with slate or tile roofs and, generally speaking, the English cotton mill workers are good housekeepers. The front room, or sitting room, is used for the entertainment of friends. Since there are no basements many homes have flagstone floors on the ground floor; others have wooden floors. In either case the floors are usually well covered with rugs of various patterns. These rugs are often made by the housewife and usually show considerable originality and skill. Other rugs, purchased by operatives at auctions or at stores, reflect the taste of the purchaser who, unfortunately, in some instances, have been the victims of glib salesmen. Others admired an unusual combination of colors when buying rugs.

Religious pictures or prints are popular wall decorations. Pictures of flowers or ornamental flowers adorn the front room and a figurine, won at a fair or purchased at an auction usually occupies a prominent place at the front window.

This room is heated by a stove or a fireplace. Ornamental fireplaces are very common and are equipped with coal grates. Some of the stoves have fancy trimmings and many of them are very serviceable. One such type was so constructed that the middle part, which contained the grate, heated the room while on one side water was also heated. At the same time pies or cakes could be baked in an oven on the other side of the grate. These three-purpose stoves enjoy considerable popularity in Lancashire and while difficult to clean are kept highly polished.

In the usual cotton mill worker's home the kitchen is the only other ground floor room and it opens on the back yard. This room is slightly smaller than the front room and is also used as a dining room. The kitchens are equipped with running cold water which is heated by small electric heaters or by stoves. A small pantry opens off the kitchen. The stairway is usually located between the living room and the kitchen and leads to a front and a back bedroom. In many such homes the upstairs is made into three bedrooms. The upstairs is not heated.

This type of home usually has a small back yard, about 15 by 20 feet enclosed by a five or six-foot brick wall. Two small brick structures are usually located there, one being equipped with a flush toilet and the other used to store fuel.

Some of the back yards are completely paved with large flagstones while others are used to grow flowers and vegetables. Homes with large lots often have very good vegetable gardens and many have converted their war-time metal bomb shelters into tool houses. *(To be continued.)*

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7. Ministry of Labor Gazette, Aug., 1949, pp. 261-262.

8. Samuel Greg, *Layman's Legacy,* Appendix A, pp. 315-325.

U. S., European Textile Leaders Confer

Representatives of the American cotton industry and Western European cotton textile leaders conferred last month at Zurich, Switzerland, on plans for a campaign to familiarize technical personnel of European cotton mills with improved cotton qualities and better cotton utilization methods.

U. S. cotton industry representatives at the meeting were Read P. Dunn Jr., Washington, foreign trade director of the National Cotton Council, and Malcolm E. Campbell, Raleigh, N. C., dean of the School of Textiles at North Carolina State College.

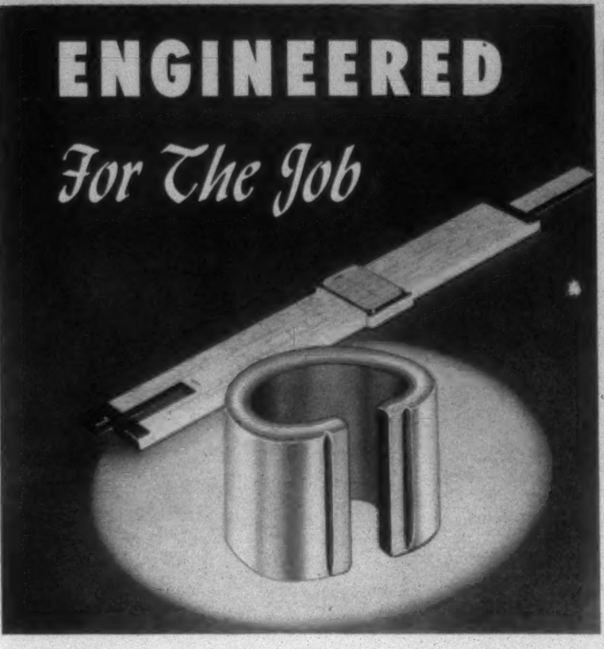
"Our representatives at the Zurich meeting were seeking to accomplish a dual goal," Harold A. Young, council president, explained. "First, they were attempting to interest top management of leading European mills in the possibilities of capitalizing on improved fiber properties and of more fully utilizing cotton to make cotton products better, more attractive and less expensive, and thus to widen the market for cotton.

"They also are working with mill managements on a follow-through campaign at the technical and operating level to achieve the over-all objective of getting more cotton consumed. The plan calls for a team of as many as ten from the Department of Agriculture, technical schools, private laboratories, associations like the council, and possibly other groups including private mills, to visit key European research centers and mill communities."

Mr. Young said that the American experts discussed the progress of cotton research in the United States from the standpoint of the development and utilization of fiber properties.

"We are particularly interested in determining whether this research is sufficiently well directed toward the needs of European spinners," he said. "We also would like to learn from our European customers of any additional problems that should be given research attention. From the European point of view, the exchange of information might be helpful in finding new market outlets for cotton and in strengthening cotton's position in present outlets in domestic markets on the Continent."

The only reason a great many American families don't own an elephant is that they have never been offered an elephant for a dollar down and a dollar a week.—*Greenville* (Tenn.) *Sun.*



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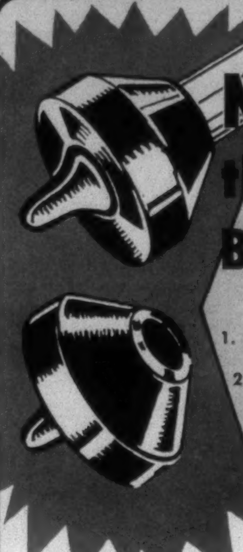

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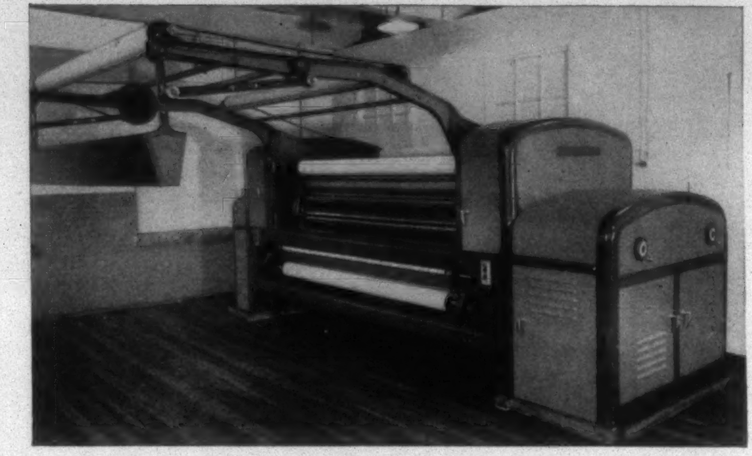

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By ROBERT Z. WALKER

Part 38 – The Traveler, A Mechanical Impossibility, Makes Good

ANY well-versed, purely mechanical engineer, studying the ring traveler for the first time, will emphatically declare that the ring and traveler method of spinning is mechanically impossible. In theory the use of two steel parts running together without lubrication at a speed of over a mile a minute, and partially supported by an abrasive yarn passing through the traveler, is impossible. However, there are too many millions of travelers running this very instant for this purely theoretical argument to hold water.

The point which is being stressed here is the fact that the traveler, while able to function to complete satisfaction, is a critical problem which deserves instensive thought and attention. As it operates by violating many theoretical principles, it is obvious that it requires all the help that can be given to it by matching the particular traveler to the conditions under which it is operating and in preventing any abuse of either the traveler or the ring.

The development of ring spinning has proven to be one of the greatest advances in the art of spinning, and is the most important contribution ever made by Americans to the textile industry. The invention of the ring traveler is attributed to John Thorp, who was born in 1784 in Massachusetts. The exact date of Thorp's invention is not too clearly established, as the record of his patent was accidentally uncovered in 1924-1925 during an entirely different investigation being conducted in the Patent Office. There were several patents attributed to Thorp during the period from 1812 to 1844. His most important patent was granted to him on Nov. 20, 1828, and became the basis for the development of the ring traveler method of spinning in use today.

John Thorp's invention was enlarged upon and developed by Nathan P. Hicks of Rhode Island. His development was important in that he carried out exhaustive research and determined that the weight of the traveler was dependent upon the count of the yarn being spun. He further analyzed these fundamental conditions and discovered that, in addition, the traveler had to conform not only in weight but also in width of flange and shape of circle. He continued his experimental work until he had devised a table of standards based upon the above characteristics of the traveler and co-ordinated to the type of yarn to be spun.

The work of Hicks was carried forward by Horatio L. Pierce of Massachusetts. Mr. Pierce studied the problems involved in ring spinning and in time acquired an intimate understanding of the basic principles which determine the action of the traveler in combination with the ring. The first problem which he studied was means of reducing the frictional contact between the traveler and the ring. In 1869 he invented and brought out the round point traveler, in contrast to the square point travelers which had been used exclusively before that time. The round point traveler has since predominated whenever very fine yarns are spun because of its lighter bearing on the ring. His second important contribution was concerned with the shape of the traveler; and in 1879 he patented the elliptical traveler, which has been used in many instances to overcome particularly difficult spinning problems.

Before discussing the use of travelers themselves it might be well to describe briefly the manufacture of travelers. The practical spinner should appreciate the difficulties involved in making travelers, and in particular realize the engineering feats which are performed in producing the modern traveler. As an instance of this there are travelers made in which two entirely different steel structures are combined.

It is not desirable to harden an entire traveler to too high a degree because a fundamental metallurgical principle is that hardening increases the brittleness of the metal. If an entire traveler is hardened to a high degree the general structure of the traveler will tend to make it so brittle that there will be a high percentage of travelers snapping when placed on the ring. At the same time it is desirable to produce travelers which have extremely hardened surfaces at the points at which they contact the ring. The problem is therefore to have extremely hardened horns while the bow or middle of the traveler is relatively soft and flexible. This has been done in some instances by removing a portion of the material in the bow area to create a heat-treating condition which results in tempering the bow area while the remainder of the traveler is several degrees harder. As the horns have a harder structure, the friction and wear at the points of contact is reduced and the life and stability of the traveler are relatively increased. This means that the traveler can either be used longer or else that it can stand increased spindle speeds.

The present-day manufacturer of travelers is faced with an enormous difficulty because of the many different sizes and styles of travelers demanded by the industry. This is not a desirable condition from the standpoint of the manufacturer and there is no doubt but that the situation could be alleviated without harmful results. One manufacturer produces over 18,000 different styles and sizes, ranging in weight from 25/1000ths of a grain to 625 grains per traveler.

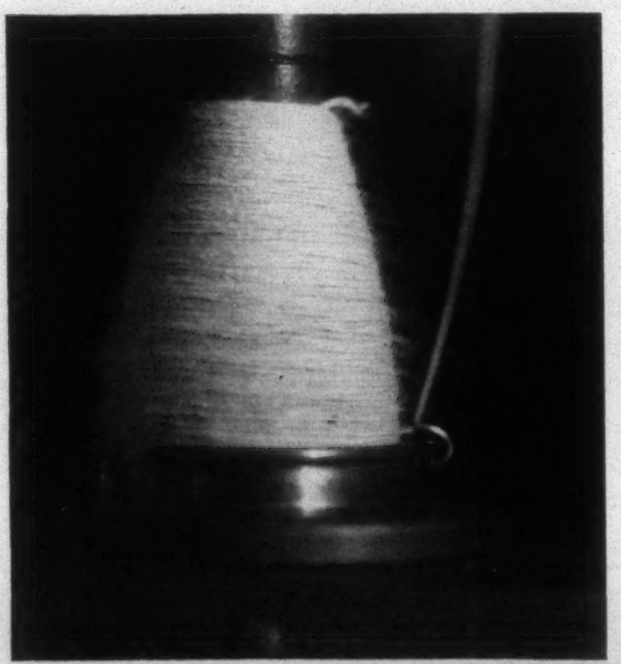
What has happened is that over the years individual travelers have been developed to meet the individual needs, imaginary or actual, of a single mill. Many times when a mill is in difficulty it has called in traveler experts who have altered basic traveler styles to reduce a specific condition. The result: a new style of traveler requiring new dies and one more problem for the manufacturer to handle;

there is no doubt but that if practical spinners would cooperate with the ring manufacturer to reduce traveler styles the result would be a reduction in the cost of the traveler. This point is only to illustrate why the present cost of the traveler may seem high to a casual observer. Practically speaking, traveler costs are so low in relation to the value of their performance that the difference between the cost of a standard traveler and a more specialized traveler would be negated by only an infinitesimal increase in perfromance.

The first step in manufacturing travelers is to draw the wire. This wire is originally of iron composition but undergoes a transformation to steel in the manufacture. The drawing operation consists of rolling the wire into the basic shape of the traveler, that is, either flat, oval, or in some instances, a compromise to give an ellipse shape. Oval travelers are used mainly for twisting, but there are many spinning travelers which are elliptically rolled. The advantage of either oval or elliptical rolling is that a perfectly smooth exterior surface is produced with edges eliminated, so that the yarn does not travel over a sharp edge which could cut the thread. The elliptical traveler is used primarily for the spinning of synthetic yarns, blends or worsted yarns.

After rolling, the travelers are cut and shaped. They are then heat treated by heating them in a carburizing compound and then quenched in oils. In carburizing the travelers a surface hardening is produced. Needless to say, because of the narrow cross-section of the metal, the temperatures of heating must be controlled extremely accurately to prevent either burning or, at the other extreme, the loss of hardness.

After quenching the travelers they must next be polished. It is easy to visualize the difficulty of polishing multitudes of tiny steel fragments when it is remembered that their performance, and the quality of the yarn produced in the spinning mill, is so completely dependent upon the final surface of the individual traveler. This polishing is done by tumbling travelers in a mixture of pumice, quartz, sawdust and leather for a number of hours until each individual traveler has attained its final polished surface. The final step in the manufacturing process is an inspection. This inspection is rather remarkable in that each individual traveler is inspected to eliminate any having imperfections.



High-speed photograph of a traveler in action. Note that the outer horn of the traveler is floating free from contact with the ring.

At the beginning of this article we pointed out that ring spinning was a mechanical impossibility, speaking from a purely theoretical standpoint. In the light of this fact it is interesting to note a few examples of how efficient the traveler is, and also to note the extraordinary job which it does. One of the traveler companies, studying the operation of its travelers by stroboscopic methods, brought out some rather remarkable performance facts. One of the studies was for a two-inch diameter spinning ring used in conjunction with a spindle of 9,500 r.p.m. They found that there was an actual traveler lag which could be deducted from the number of revolutions of the spindle, in this case determined to be 200 r.p.m. This gave a surface speed of the traveler on the ring of 4,869.48 feet per minute. The distance covered by the traveler in one week of two shifts, 80 hours, was 4,426.8 miles. Calculating this for a spinning room of 50,000 spindles, for the same period, the traveler would cover 221,340,000 miles.

Another example: with a three-inch diameter spinning ring and a spinning speed of 8,500 r.p.m. there was a traveler lag of 100 r.p.m., producing an ultimate traveler speed of 8,400 r.p.m. The surface speed of the traveler was 6,957.36 feet per minute. On the same basis as above, each traveler would cover 5,996.6 miles. For a 50,000 spindle spinning room all of the travelers would cover a combined total of 299,880,000 for the week.

Having discussed travelers on a broad basis, to provide a background of history and manufacture, the technical difficulties and measures taken to overcome such difficulties can be more clearly appreciated. In discussing the fine technical points regarding travelers, one must consider selecting the traveler to assure spinning of fine quality yarn and also consider the life of the traveler.

For many years the standard rule was that traveler speed should never exceed a mile a minute, or 5,200 r.p.m. In recent years this old rule has been broken and traveler speeds have sometimes exceeded 6,000 r.p.m. for coarser counts. In general, however, the best results are obtained by not exceeding the mile a minute limit on the conventional frame. The new Saco-Lowell Gwaltney spinning frame is claimed to establish spinning conditions which permit exceeding this old standard by a significant degree. In this instance the balloon of the yarn is so controlled that the tension on the yarn is reduced, with a resultant reduction in friction between ring and traveler, so that higher speeds will not impose previous pressures.

In general, on the conventional frame, traveler speed still remains a factor of major importance. Regardless of the frame, however, it is still necessary to select the traveler having the circle and weight best suited to the size of yarn being spun.

Fundamentally, the traveler has two basic functions: (1) to assist in twisting the strand of yarn as it passes from the front roll to the bobbin and (2) to make possible winding the yarn onto the bobbin. These operations must be performed without creating excessive tension or whipping of the balloon. The balloon itself is formed due to the cen-

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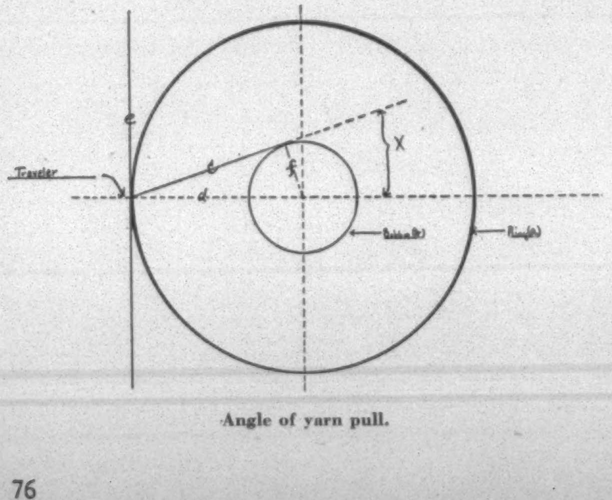
trifugal force of the yarn as it revolves, along with the traveler, around the ring. The amount of twist inserted into the yarn is governed by the ratio of the speed of the spindle to the speed of the front roll. However, the traveler will automatically adjust itself to any change in this relation. In other words, the amount of twist is not directly a factor entering into selection of the traveler, although there are indirect influences on the traveler caused by variations in twist.

In selecting a traveler the first consideration is that the circle be such that friction from contact between the horns of the traveler and the ring should be as low as possible. The ideal traveler would be one which would float completely free of the ring, that is, it would be held away from actual contact with the ring by the pull of the yarn being twisted. Practically, this is a near impossibility, but it is altogether possible to use a traveler which will contact the ring at only one position and will rotate in a stabilized manner without excessive variations in the point of contact. Preferably, the traveler should float around the ring with its inner horn resting lightly against the inner web of the ring.

There are two main forces which govern the path of the traveler with relation to the ring. The tension of the yarn pulls the traveler up away from the ring. The other force is a centrifugal one which tends to throw the traveler away from the spindle. The ring must counteract both of these forces to keep the traveler in its proper position. In the conventional circle traveler the upward pull of the yarn forces the traveler to rise until the inside horn contacts the flange of the ring. With this type of circle the center of gravity extends well into the bow of the traveler and as a result it becomes topheavy so that centrifugal force tends to cause it to tilt over. At high speeds the traveler will tilt until the outside horn touches the web. In this condition the traveler will be resting on both the inside and outside webs of the ring and a groove will be worn into the outside web.

Improved traveler shapes have been developed to minimize and to eliminate this tipping. In addition the horns of the traveler have been formed so that the inside horn will not rest against the flange of the ring. The angles of the horns vary considerably, from one manufacturer to the other, but all angles are intended to suit a particular traveler and conditions imposed by the spinning under specific conditions. Even more important, however, the circle has been changed from a true circle to an elliptical shape. The objective of this change has been to establish a center of gravity closely identical to the center of symmetry, which actually results in lowering the center of gravity so that the traveler will be balanced dynamically, or when in motion. This is accomplished by lowering the center of gravity, bringing it closer to the symmetry. What it does is to place more metal below the point of pressure to counterbalance the weight above it. With this type of circle the traveler will tilt over and away from the center of the ring at an angle.



Angle of yarn pull.

This angle is maintained because the sharp curve of the elliptical shape prevents the traveler from rising until the horn is resting against the bottom part of the upper flange of the ring. As a result the traveler is held so that its position of contact with the ring will be against the inner web of the ring, not against the bottom of the upper flange, and the outer horn will be held away from the outer flange of the ring.

As any spinner knows, a specific amount of tension must be applied to the yarn if a firm bobbin is to be produced. If a traveler is used which, in effect, creates less tension on the yarn then a poor bobbin will result. In the case of elliptical travelers this means that heavier travelers must be used for the same amount of tension, or drag on the yarn. This condition is highly advantageous, however, because there will not be any additional friction on the inside horn, because only the same amount of tension will be produced by the heavier traveler, and in addition the outer horn will not be rubbing on the web of the ring. All the tension will be created by friction on the inside of the horn. As the traveler will be of the same size it is possible to use heavier metal and therefore there is more stock to wear off before it flies off. The extra stock is also desirable as it is better able to absorb heat at high speeds without burning.

The burning of travelers is of extreme importance and is one cause of shortened traveler life. By having frictional contact at only one horn of the traveler the heat is generated at only one end and therefore the remainder of the traveler will be air cooled to improve the cooling and expelling of heat as the traveler runs around the ring. This same heat also is an important factor in ring life and a cooler traveler will aid in obtaining the maximum life from the ring. Ring wear is decreased, and traveler life prolonged, with this type of traveler, because it is possible to utilize the extra stock to make the traveler wider. The extra width tends to cause the traveler to ride with the full width of the wire against the ring as compared to a condition in which the traveler is running with only one edge of one horn against the ring. This reduces the unit pressure on the flange of the ring and the wide bearing surface of the traveler provides smooth running, without quiver or jumping from one edge to the other, resulting in a more gentle wear on both the ring and the traveler. At the same time there is no increase in friction.

This section has dealt with the development, manufacture, and theory of the traveler. The principles of traveler design have been pointed out, together with some factors affecting traveler wear and ring abuse caused by the use of improper travelers. The purpose of this has been to establish the standards by which travelers should be evaluated and selected. This selection will be covered in the next article.

Georgia Executives To Meet April 18

A discussion of carding and spinning problems will feature the Spring meeting of the Textile Operating Executives of Georgia to be held April 18 at the Harrison Hightower Building, A. French Textile School, Georgia Institute of Technology, Atlanta. A questionnaire listing 32 questions made up from those submitted by the mill operators for discussion has been sent to members for their answers and comments. T. M. Hampton of Callaway Mills Co., LaGrange, Ga., is chairman of the group.

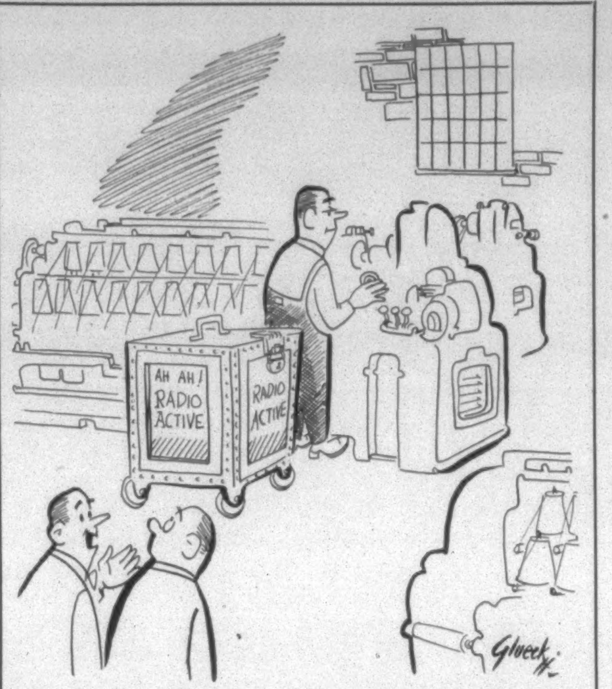
International Cotton Standards Conference

The U. S. Department of Agriculture announces that the next International Cotton Standards Conference will be held in Washington May 13, 1953. The conference, called pursuant to the Universal Cotton Standards Agreements, will be participated in by representatives of cotton trade associations of Belgium, England, France, Germany, India, Italy, Japan, The Netherlands, and Spain, and by representatives of the U. S. Department of Agriculture. Representatives of shippers, mills, and producers' co-operative associations, and of various farm organizations in the United States also are expected to attend.

The conference has been called for the purpose of examining and approving sets of copies of revised standards promulgated last year by the U. S. Department of Agriculture under the U. S. Cotton Standards Act. Under provisions of this act, as amended, the Secretary of Agriculture is authorized to effectuate agreements with cotton associations, cotton exchanges, and other cotton organizations in foreign countries for (1) the adoption, use, and observance of universal standards of cotton classification; (2) the arbitration and settlement of disputes regarding such standards; and (3) the preparation, distribution, inspection, and protection of the practical forms of copies of the standards under such agreements.

The Universal Cotton Standards Agreements, negotiated in 1923 and revised in 1925 in line with this authorization, make American grade standards for upland cotton the basis for all contracts entered into by certain foreign cotton associations for the purchases and sale of American cotton in which grades are specified. Supplemental Agreement A provides that meetings be held at three-year intervals for the purpose of examining and approving sets of copies of the "original standards as and when they were established."

The need for a revision of the standards for American upland cotton was indicated at the Universal Standards conference held in Washington in May 1950. After extensive studies of cotton from recent crops by the department and after consideration of suggestions received at informal meetings with interested producer, trade, and industry groups, the department prepared revisions of the standards. These revisions were considered at a public meeting in Washington on June 19, 1952, and were approved at a meeting in Le Havre, France, on July 7, 1952, by representatives of the signatory associations to the international agreement. Following this approval, revised Official Cotton Standards for American Upland Cotton were promulgated Aug. 12, 1952, to become effective Aug. 15, 1953.



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1954 Cotton Research Clinic At Pinehurst

The 1954 Cotton Research Clinic, sponsored by the National Cotton Council, will be held Feb. 17-19 at Pinehurst, N. C., it was announced at the conclusion of the 1953 event conducted last month at Savannah, Ga.

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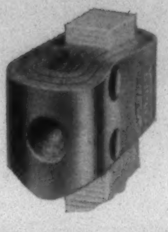

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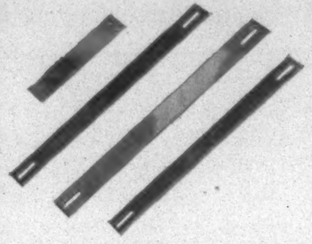

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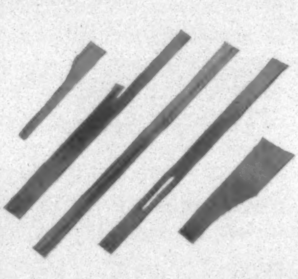

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Testing At The Manufacturing Level

By P. L. D'ALESSANDRO, Laboratory Manager, Fabric Development Department

Deering, Milliken & Co. Inc., New York City

MANY people have in the past voiced a great deal of doubt about the value of textile laboratory testing. In some respects I cannot blame them because we are still dealing with too many tests that do not necessarily duplicate the true occurrences of wear. However, with the advent of the new fibers the manufacturer is approaching a new outlook toward laboratory testing which will make this type of work of inestimable value to the manufacturers, in spite of the shortcomings of some of our tests. This new outlook towards testing by the manufacturer has been necessary, in order to satisfactorily meet the many fabric evaluation problems arising from the use of these new fibers that are no longer regarded as adulterants, and are now recognized as conferring new and valuable fabric properties. The new fibers, therefore, are bringing about a radical change in the manufacturer's concept of textile testing as it pertains to fabric development. At present, he has become as equally concerned about testing basic fabric properties, as he has always been concerned about testing his raw materials at the mill.

At the mill or production level of testing the laboratory has always been a basic and integral part in the manufacturer's scheme of operation. Its importance to manufacturing needs little elaboration for laboratory testing has long since been recognized as one of the mainstays of sound business practice.

That the scope of laboratory testing at production levels is very broad indeed is rather apparent when it is realized that it may and frequently does embrace every aspect of testing which may range from the basic raw materials to the finished product, depending on the manufacturer's field of operation.

In a very broad sense five aspects of testing are recognizable at the manufacturing level: (1) raw materials testing; (2) quality control testing; (3) testing of new products; (4) basic research; and (5) fabric development testing.

This does not mean that five separate laboratories are required, but rather that for any laboratory set-up, regardless of its size, its testing program will eventually conform to this pattern, more or less. In all these various testing phases, the underlying purpose is the manufacturing of a good end-product. However, it might be well to discuss briefly the general nature of the testing usually involved in this rather arbitrary classification. Although there may be some overlapping between these diverse testing phases, the first four categories are essentially mill functions concerned chiefly with effecting improvements in quality and economies in manufacturing. For example, testing of raw materials for grade, quality, and other specifications that may be required is a basic function of any mill laboratory, and involves the measurement of fiber diameter and staple length, or yarn evenness, tensile strength and elongation, depending on the raw materials which might be fibers, or yarns.

Quality control testing is another important aspect of mill testing, and again depending on the particular operation, includes the testing of roving, sliver, yarns and fabric. Under this phase of testing we can consider the testing in two parts, i.e., (a) tests performed prior to cloth weaving and (b) tests performed on woven cloth. Tests conducted prior to cloth fabrication include such routine tests as weights of roving and sliver, and size, appearance or evenness of yarns to assure correct running of stock and machine settings. Tensile strength and elongation measurements of yarns are frequently necessary to determine whether yarns will slash and weave satisfactorily. At this juncture, it might be advisable to mention that laboratory test results will prove meaningless unless the test data have been co-ordinated with mill practice and experience. Proper interpretation of laboratory test data cannot be made without a backlog of accumulated experience in which test results and mill practices have been correlated. Therefore, marginal or low laboratory test values are frequently verified by conducting experimental trials in the plant, to determine under actual processing conditions whether the border-line results obtained by the laboratory are actually outside the limits of efficient operation and good quality production.

In addition to the usual quality control tests made after weaving, it is a common and a good practice for the laboratory to boil-off and dye a small head-end, in order to check for any cloth imperfections which sometime make their appearance only after dyeing, and which often cannot be detcted by ordinary greige goods inspection. Of course, the laboratory will also participate in the analysis of any imperfections uncovered so that the condition causing the imperfection can be determined and eliminated as soon as possible.

The third aspect of testing involves the testing and evaluation of new products such as dyes, finishes, detergents, sizes and many other textile specialties. Here again the results of laboratory tests must be very closely correlated with actual mill trials, for very often that which works well in the laboratory does not necessarily work satisfactorily in the plant without some modification. And again, laboratory findings often contribute valuable information on the modifications that might be necessary to obtain the desired result.

The fourth phase of testing, that is probably the most costly, is basic research, the scientific overseer of all elements of plant processing. Basic research concerns itself with improvement and development of plant operational processes in all stages of manufacturing from the raw materials to the end product. It also may concern itself with the numerous plant production problems that are bound to arise during the course of any manufacturing operation. In general, the concrete accomplishments of basic research are vary slow in materializing, but its results are compensating for very often its accomplishments are far-reaching and fundamental and sometimes patentable, and thus usually pays for its cost many times over and justifies its long term investment.

The fifth phase of testing, and the one which will be discussed in greater detail, is testing as related to fabric development. It should be stressed that the order in which these testing phases have been presented has no particular significance with respect to relative importance. They are all equally important to the manufacturer. What then are functions of fabric development testing? Does it serve merely as a means of obtaining basic constructional data, to be used by the development department for duplicating or developing new fabrics? Not at all. I stated before that we are approaching a fresh outlook in fabric development testing occasioned by the advent of the new fibers. Their use in functional fabrics has so broadened the scope of fabric development testing that it must now include the evaluation testing of fabric properties for assurance of consumer satisfaction, as well as serve as a clearing house for statements and claims to be made regarding fabric performance.

We all know that laboratory test results are not always reliable in predicting fabric serviceability in the form they might appear in consumer use. Therefore, laboratory test results in the early stages of evaluation testing must be used as a preliminary screening operation. Eventually, laboratory evaluation of new developments should be correlated with field trials where performance can be appraised under conditions of normal usage. Field tests are obviously costly, time consuming and not always possible. However, once the laboratory has accumulated sufficient data, and has an established back-log of experience, I'm convinced that laboratory test results can be used to advantage, and field tests can be by-passed at a considerable saving in cost, time and effort.

I said before that the ultimate objective of manufacturing testing is the production of a good end-product. But what is a good end-product? To make a good product, the manufacturer must first ascertain the fundamental properties of fabrics which will best serve certain end uses, and then select the proper yarns or blends to achieve the desired end results.

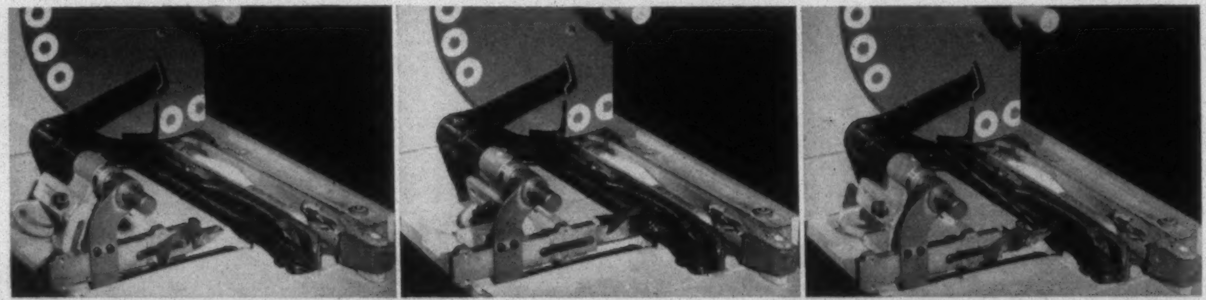
You well know that because of the characteristics of the new fibers such fabric factors as shrinkage, crease and shape retention in laundering, resistance to abrasion and soiling have become increasingly important factors for the laboratory to evaluate. This evaluation function serves as an assurance that the fiber selection and proportion of blend used has accomplished the desired result in fabric performance. For example, a given blend may accomplish a certain desirable requirement, but it does not necessarily follow that the same blend in other fabric constructions will perform equally as well.

On the other hand, a given blend, let us say of 85 per cent rayon and 15 per cent acrylic used in similarly constructed fabrics need not necessarily show the same fabric performance. Why? Because there are a multitude of production factors ranging from spinning to finishing that will have a definite effect on ultimate fabric characteristics and behavior. These factors must be kept under control at all times, if we are to enjoy the potential fabric properties possible with these new fibers.

This leads to the other important function of the fabric development laboratory, namely, serving as a clearing house for fabric performance claims made by the manufacturer. Although we can all appreciate the enthusiasm with which some of the newer fabrics have been received, we must avoid undermining the consumer's eagerness to accept these developments by exaggerated statements. I mean, for example, a claim that appeared in an ad which read "This skirt stays box-pleated forever." A laboratory would not, could not and should not sanction such claims that a skirt stays pleated forever —forever is a long time. Such claims accomplish no useful purpose and only serve to shatter consumer confidence in our industry.

You can readily see that this phase of laboratory testing if properly established and used at the production level can avoid needless expense amounting to a small fortune, avoid many problems and headaches, and will best assure consumer satisfaction which can be translated into good business.

Mr. D'Allessandro was one of three panel speakers during the Nov. 5 meeting of the American Association of Textile Technologists in New York City.



THE JACOBS VERYBEST THREAD CUTTER, described in the January issue of this magazine and shown last Fall at the Southern Textile Exposition by Bullard Clark Co., is shown in action here. At *left*, cutter is in idle position, where its simple construction and lightness can be seen readily. *Center* picture shows the cutter going out for the filling thread with jaws open. When the transfer is made the box front will hit the cam and close the cutter jaws, cutting the filling thread on the right side and holding it securely on the left side. Picture at *right* shows the cutter returning and after the transfer, holding the filling thread of the bobbin transferred. Cutter blades in the Jacobs Verybest are so adjusted that the cutter will sever and hold all yarns from 15-denier nylon to filling used on No. 6 duck. With no adjustment, blades will cut all types of yarn, including spun rayons, blends and glass fibers.

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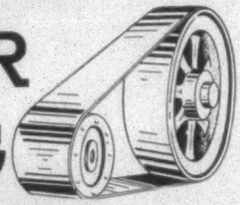

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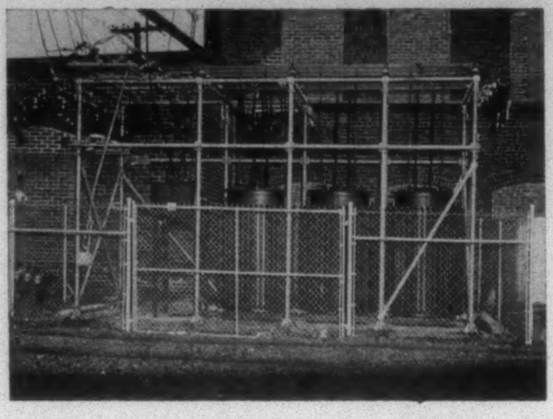

Photo showing Sub-Station structure furnished and installed by Southern Electric Service Company, Inc., Charlotte, North Carolina. This was designed for 2400 volts primary to 600 volts secondary for conversion to 4160 volts, 3 phase, Wye connection primary to 600 volts secondary.

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Maintenance, Engineering & Handling

Service Department Functions Outlined By Alabama Operating Executives

By HARWELL HOWARD – Part Two

MILL housekeeping and electrical maintenance practices, as observed by members of the Alabama Textile Operating Executives, were described in the previous issue of this magazine. Further reports from the Alabama supervisors follow.

Of two general questions about maintenance operations, the first one, under it, was "What type air changing system do you have? Give all details for maintaining and cleaning on your system."

The favorite systems used were in this order: the wet duct type, window unit, dry duct, system of fans and louvres. Two mills reporting the use of the above systems also said they had the central station type.

In describing how its system was maintained and cleaned, Mill A said that a representative from each department was responsible for having the air change unit blown out weekly. "The humidifying system is checked daily with a set schedule for cleaning heads in each department taking down so many heads and replacing them with clean heads, carrying the dirty heads back to the humidifier shop for re-working and adjusting. In this way we get two cleaning and re-working heads in the entire operation at least three times a year."

At Mill B which only reported using a system in its weave room, "screens are cleaned three times each eight hour shift, the units are cleaned once a week." Mill C does not have a complete air change system. It does have fans which are cleaned once a week. Mill D, using a dry duct system in its spinning department and a specific type of moistening window unit in its weaving department, said that the dry duct system required less frequent cleaning than did the other type.

Mill E has a humiduct-type system which changes the air completely every three minutes. This mill uses one man in each plant just for cleaning. "All outlets in the ducts need cleaning twice daily, the re-circulation screens of the heaters need cleaning every two or three hours. Ducts need cleaning once a week; all motors and bearings need cleaning every six months. We have 79 humiducts and 28 master B controls to serve them.

Mill E also noted that it had two standard air washers which had these two definite advantages: "They are easier to clean and they need cleaning only twice a week but they are fixed so you can do it with a hose pipe, and you only have one motor to care for on the whole system. You can use these washers in rooms where you cannot use much water, and they have eliminator plates which do not allow any but moist air to pass through and will not wet down and cause machinery to rust. You do not have to clean the outlets as often on this job as you do on the humiducts. All controls are operated by air from a small compressor which is furnished with the job." Mill E said that its humiduct-type system served as a heating system during the Winter. "All controls are electrical; water valves, steam valves, and dampers are also electrical. . . . We have in each mill a filter tank with a pump to supply water to the humidifier system. We feel that the filter tank pays for itself in a very short period of time because the water otherwise would be wasted without the filter tank to re-circulate the water back through the system."

Mill G gave the following details about cleaning and maintaining each of its four kinds of systems: "*Humiduct:* Clean re-circulation screens and exhaust louvre screens every two hours. Wipe outlets twice daily. Control cabinet screens cleaned daily. Check operation of system daily. Clean control cabinet weekly. Clean intake and intermediate drain pans weekly after blowing. Clean water strainers, main lines, and orifice housing weekly. Drain and clean out re-circulation filter tank monthly. Lubricate fan and evaporator motor bearings every three months. Clean intake screens weekly. *Dry duct with atomizers:* Clean re-circulation screens and exhaust louvres every two hours. Check operation of system daily. Clean grills according to lint condition. Drain air lines twice weekly in Summer. Clean ducts inside yearly. Clean atomizers completely yearly. *Central Station:* Check operation daily. Clean re-circulation screen (one-inch screen) daily. Blow off louvres and motors inside apparatus room daily. Wash and clean blowers daily. Wash and clean baffle plates daily. Check all atomizers daily to see that they are functioning properly. Control screens are cleaned daily. Washers are drained, washed and cleaned weekly. Controls are cleaned inside weekly. Clean grills every two weeks. Clean inside ducts yearly. Clean atomizers completely yearly. *Ductless air change:* Check operation of system daily. Drain air lines twice daily. Blow out window units every other day. Clean exhaust louvres every other day. Clean inside controls weekly."

At Mill H the dry type is used in the spinning room. Department personnel clean the intake screens every 14 days. Doors at the end of the ducts are cleaned once every three months. The top of the ducts are cleaned about once weekly. There is a continuous cleaning cycle in this mill's weave room where the central station-type is in use. Air is pulled through a mass of water spray after being drawn from the weave room or from outside it. Lint and other matter gets saturated with moisture and falls to the reservoir of water on the bottom. A pump outside of the washer pulls the water from the reservoir through a revolving self-cleaning screen and then through the pump to spray nozzles in the washer. The same method is used to clean the ducts in the weave room as for the ones in the spinning room. The washer at Mill H is cleaned daily so that lint will not clog the spray nozzles.

Mill I has assigned a man to be responsible for operating all air-changing and humidifying controls in the plant and also for supervising the men who clean and repair the equipment. Two men on this mill's first shift have no other duties except to clean and maintain the humidifier equipment. Someone else on the second shift and another on the third takes care of the atomizing equipment and controls.

Ball Bearing Lubrication

Next the mill men were asked to "Explain in detail your method of greasing ball bearings, giving: (a) frequency of greasing; (b) type of equipment for greasing bearings; (c) type of equipment for transferring ball bearing grease from large barrels."

Of the nine mills reporting on (a) three said that greasing was done every three months. Mill C said that it was done every three months except on high temperature bearings which were greased every two weeks. Mill F greases ball bearings every six months.

At Mill G it is done every six months with either a battery-powered lubricator or a lever-type grease gun. Mill A said that the frequency with which it greased its ball bearings depended on the location of the motor and the operating schedule. Mill I said that the frequency of greasing was determined by the type bearing and location. "Ordinarily a properly greased and sealed bearing should go three and in some cases as much as six months before re-greasing is necessary," this mill stated.

In answer to (b) calling for the type of equipment used to grease bearings, Mill A stated, "One man is responsible for checking all motor bearings and lubrication. He is equipped with a hand grease gun and an oil can. Our experience from this arrangement has been very satisfactory over a ten-year period involving over 10,000 motors."

Mill B uses a hand gun; Mill C, a battery-driven gun and air-operated pressure gun; Mill D, an electric grease gun; Mill F, a pressure grease gun; Mill G, "either a lever-type grease gun or a battery-powered lubricator;" and Mill I, a hand-type grease gun.

Mill J reported that most of the ball bearing greasing there is accomplished with "an air pressure type gun in our finishing plant. In our mill, we are using a manually-operated gun that contains about 2½ gallons of grease. This gun is used mostly in carding and spinning and is used on motor bearings once a year. Different types of machinery, such as drying cans, tenter frames, pads, etc., in finishing have different frequencies for greasing, as do grease bearings on different types of mill machines."

The kinds of equipment in use for transferring ball bearing grease from large barrels included: "a regular hand pump which fits into large barrel for handling grease" (Mill A); wooden paddles (Mill B); 25-pound pails (Mill C); hand transfer pumps (Mill D); hand paddle and air pump transfer (Mill F); Mill G transfers by hand since it has not discovered any equipment that is satisfactory for this purpose. Mill H reported, "We order all our grease for ball bearings in 25-pound cans. It takes nearly all of this to grease our motors and we re-seal what is left to keep grit and other particles out. Whenever possible, we try to let the same crew grease the motors so that they will become familiar with the location and the amount to put in different horsepower motors. By ordering the 25-pound cans we save on waste, handling, and storage." Mill I uses both a filler pump and a loader pump to pump grease from the drum into a hand grease gun.

In the final phase of the program, the mill men threw the spotlight of their experience on two questions concerning supply operations in their plants. The first question was "Who is responsible for ordering replacement parts and what is the method of keeping proper parts on hand when needed and avoiding over-buying?" In the majority of the cases mills reported that the supply clerk or someone else in the supply room was made responsible for ordering parts and keeping the proper parts in stock.

At Mill B, where the supply clerk is responsible, the maximum and minimum inventories are carried on cards. When the inventory gets down to the minimum level, sufficient parts to restore it to the maximum level are ordered by the supply clerk. At this mill the overseer in charge of the using department signs all purchase requisitions for special (un-stocked) items. Then the plant superintendent's signature is necessary on the requisition before it goes to the supply clerk who places the order.

Some items at Mill C are automatically replaced when inventory cards show they are down at a certain level. This automatic process is determined by the type of item involved and the frequency with which it is issued. On some items the using department asks the supply room to place a requisition. All requisitions are channeled through the superintendent's office and the central purchasing office. The mechanical department places its own requisitions for all items used on machines which the department is directly interested in. Such equipment includes motors, electrical equipment, sheet metal, coal, iron, paint, bearings, switches, welding supplies, valves and steam equipment, humidity equipment, nails, putty, glass, and lumber.

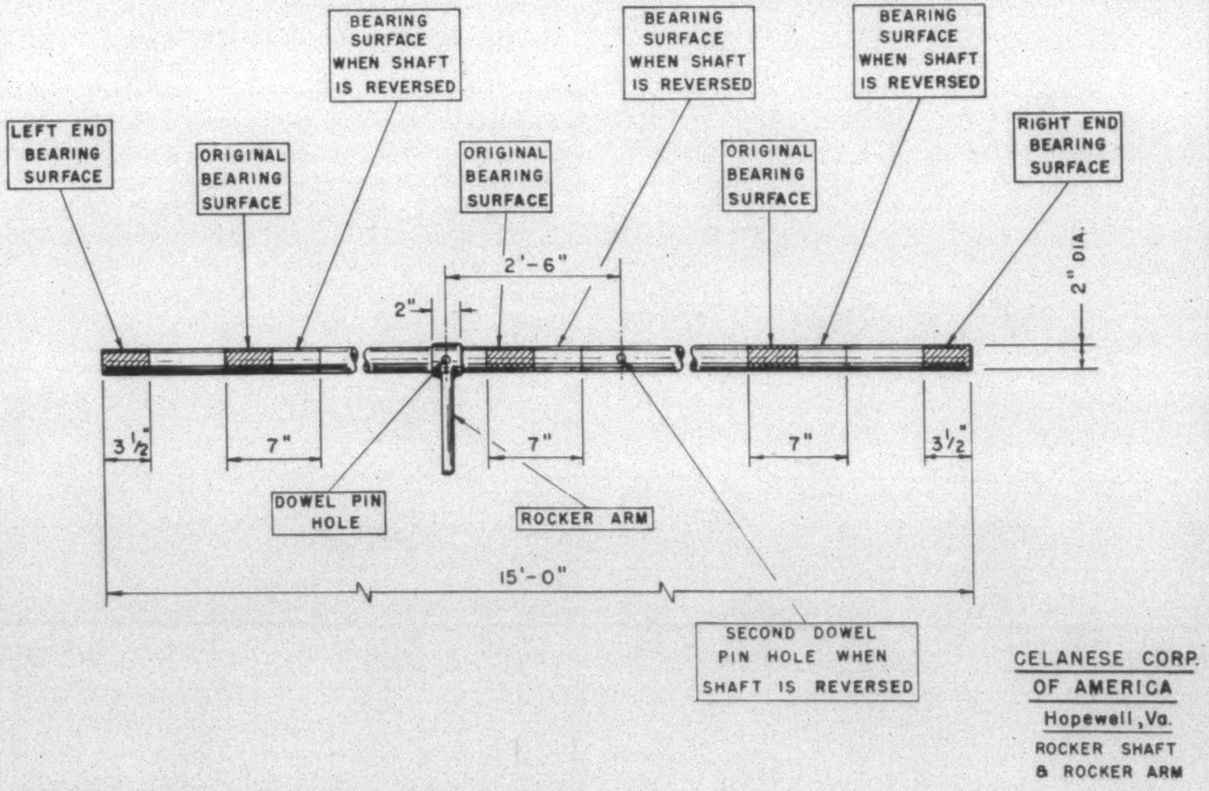
A perpetual inventory system is in use in the supply room at Mill D. It is set up to show the minimum and maximum amounts of inventory for each general repair item. When the inventory is down to the minimum, the supply clerk immediately requests a predetermined number of parts and shows a predetermined source of supply. The requisition must be approved by the foreman of the department which needs the specific part or parts. The superintendent then reviews the requisition. If he approves it, it goes finally to the person in the organization who is responsible for purchasing.

Mill E keeps a day-to-day inventory in which each item is listed on a card by location, bin number, cost, and number of items in the bin. Every day the parts issued are added up and this total is subtracted from the total number in stock. The new total is posted on the inventory file, to enable the mill to maintain a running inventory of the supplies on hand. At this mill, as a safe-guard against over-buying, "an ordering point is set up on the base of the card, and a small sliding celluloid film is used to indicate the number of parts on hand at all times in each particular bin. This ordering point is set up by experience from the superintendent and overseers in each department. Taking an example—suppose, for instance, we are ordering parts for a comb box; each part is thoroughly discussed and a decision is made as to how many parts should be kept on hand at all times. This ordering point is then established on the card, and each day as the parts are taken from this particular bin and the new balance approaches the ordering point, then it is left entirely to the supply room man to reorder when the parts get down to the point marked on the card."

At Mill G, the head supply man is responsible for ordering replacements, although there are some cases where the overseers do the ordering. Red and white cards are used on each bin. A red card means that the item is on order and a white card means that the items have been received. A "part number" card shows the minimum and maximum number of parts.

Mill H maintains a perpetual inventory of all stock. Supplies issued are recorded daily against this inventory. The head of the supply room is responsible for ordering replacements. Requisitions—based on notations made on a "wanted list"—go to the assistant superintendent for approval. He can tell if any expected changes in present machinery might make it unwise to stock a requested item. And the overseer is of help to the supply department in placing requisitions because he is in a position to foresee any big changes that might cause delay because of supplies arriving late.

The supply room at Mill I originates most of the orders for replacement parts needed at this mill. As a rule, the quantities ordered are equal to the amounts used over a specific period of time. The parts are kept in the supply room and are issued when a requisition is received from the department needing them. The card room and spinning room have supply rooms of their own, but all parts that they order must be requisitioned through the main supply room where a record is kept of all parts ordered, quantities, prices, etc. The supply room also keeps a perpetual inventory of all parts which it stocks. This inventory shows amounts on hand, when ordered, when received, vendors, costs, etc. In the mill's electric shop a card inventory has been set up for repair and replacement parts kept there;


BEARING SURFACE WHEN SHAFT IS REVERSED
BEARING SURFACE WHEN SHAFT IS REVERSED
BEARING SURFACE WHEN SHAFT IS REVERSED
LEFT END BEARING SURFACE
ORIGINAL BEARING SURFACE
ORIGINAL BEARING SURFACE
ORIGINAL BEARING SURFACE
RIGHT END BEARING SURFACE
2'-6"
2"
2" DIA.
3 1/2"
7"
7"
7"
3 1/2"
DOWEL PIN HOLE
ROCKER ARM
15'-0"
SECOND DOWEL PIN HOLE WHEN SHAFT IS REVERSED
CELANESE CORP. OF AMERICA
Hopewell, Va.
ROCKER SHAFT & ROCKER ARM

SHAFT REPAIRED IN HALF THE TIME AT HALF THE COST—"Haven't had to buy a new rocker shaft since we purchased our metallizing installation in 1944, says H. Tobler, plant engineer at the Hopewell, Va., plant of Celanese Corp. of America. The shaft is two inches in diameter and 15 feet long and is used to control the up-and-down motion of the heddle in a knitting machine. The rocker shaft, which is made of cold-rolled steel, moves back and forth in five cast-iron bearings, each approximately three inches long, and is controlled by a rocker arm held fast to the shaft with a dowel pin. They normally wear on all five bearing areas and can cause inefficient operation unless repaired or replaced. They can be reversed once.

Each of the worn areas are turned down one-eighth of an inch on the diameter, rough threaded with a Rex AAA carbide tool and metallized with a 25 carbon steel, using one-eighth-inch wire in a Metco 2E gun. The metallized areas are then turned down to the original two-inch diameter.

Mr. Tobler stated that before the company began using metallizing it would braze the worn areas on the rocker shaft, but this took twice the time and cost twice as much for materials. He also stated that a new shaft costs about $80, but that none had been purchased since the company began using metallizing in 1944.

the supply room maintains a similar card system, with parts used by the electricians being posted to the cards in the supply room and orders charged to the using department.

Mill J's supply room manager, working under the supervision of the purchasing agent, is responsible for requisitioning and maintaining replacement parts in stock. "A minimum and maximum quantity has been established and it is the responsibility of the supply room manager to see that orders are placed when the stock reaches the minimum, but no more than the maximum should be stocked. This is usually based on a 30-day minimum and a 90-day maximum stock of replacement parts," this mill reported.

The final question in the supply phase of the discussion asked mill men to describe "the best method of handling oil, greases, and empty drums." The supply clerk at Mill B issued oils and greases—which are locked up in storage—the same way that he does other supplies. Full drums of the oils used in abundance are issued. An employee of the using department returns the empty drum when he needs another full drum. Grease is issued in quantities up to 20 pounds. The amount depends on how much is to be used. Special (curved back) hand trucks are used to handle full and empty drums. Empty drums are returned once a month for refund of deposit.

The reply from Mill C to this question was, "Store them in tiered racks a safe distance from buildings. Pick them up by chain hoist on traveling overhead crane. Lower drums onto dolly, trucks, or, other specially designed conveyance. We use truck and elevator. Oiling line shafts is a problem requiring special equipment if efficiency is to be attained. We have a shop-made pressure tank that holds 30 gallons of oil and fits into the ladder that is pushed along to each line shaft bearing. The oiler must get up to the bearing in order not to run it over. Empty drums are returned to oil racks and placed in separate compartments. The oil supplier picks up empties from the rack and replaces with full drums upon requisition from the supply clerk." Oils and greases at Mill D are stored in a separate building. The mill has a departmental lubrication system and containers of oils and greases are issued to departments, on requisition, one at a time.

Containers of oils and greases delivered to Mill G are unloaded on a platform and a fork truck takes them to another platform. On this platform grease containers are stacked on end; oil containers are placed on their sides so that water will not enter the barrels. Containers of oil and grease needed in the mill are carried in by the fork trucks. Empty drums or barrels are brought out and put on the ground for pick-up by the oil companies. This mill's maintenance department handles oils and greases. A covered platform and racks for handling oils and greases is being built at Mill G. Delivering trucks will unload oils and greases directly into the racks and then pick up the empties stored under the new oil rack platform. Oil will be unloaded from the racks by means of an electric hoist.

Mill H stores all grease and oil in a 20 x 60-foot building. Each department has a 40-gallon pump for the different types, or grades, of oil they use. Most of the stock is kept in the oil house until the department needs it. Oil that is needed in the departments is brought to them in a cart. The cart is pushed to the department's pump tank which is then filled. Empty drums are either returned for deposit or are sold.

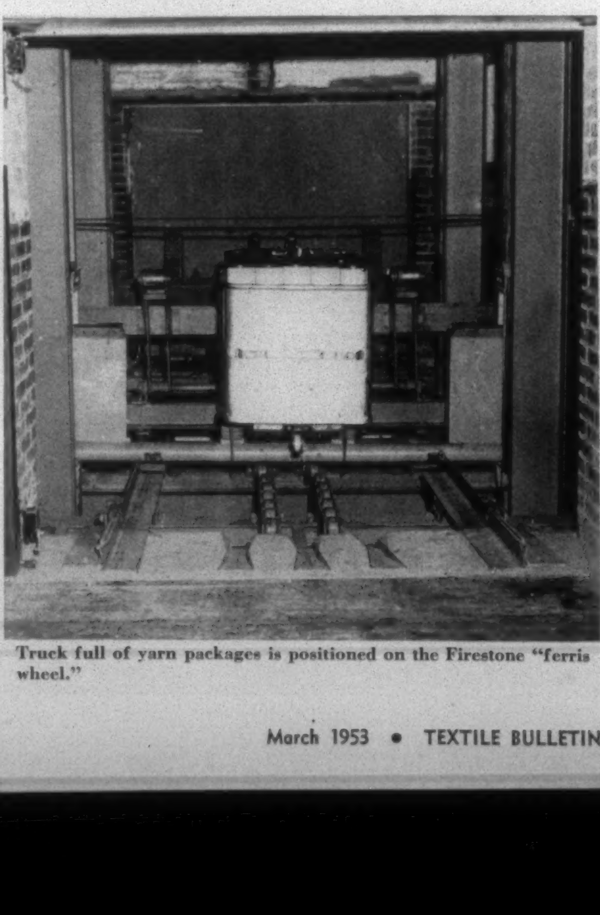
Mill I reported, "The system in use here is to send a full drum of each type of lubricant used by a department out to that department as needed. Special types of lubricants are kept in an oil house from which they can be requisitioned through the supply room as needed. Also spare drums of most generally used types of lubricants are kept on hand in the oil house. Drums are unloaded by the lubricant suppliers at a central point and sent from there to the individual departments. Empty drums are sent back to the supply room and returned by the supply room to the suppliers.

Mill J keeps its oils and greases outdoors on steel racks. They are issued to the mill departments on request. This mill handles empty drums in several ways. Some of these are: "(a) If the original contents are delivered in the supplier's own truck and he requests that drums be returned, they are returned by his truck when new shipments are received. In this case there is usually no deposit on drums. (b) If the drums do carry a deposit and the suppliers request a particular routing, the drums are returned by this routing. (c) If the drums do carry a deposit and the supplier does not request any particular routing, the reverse routing is used insofar as possible. (d) If drums are returnable with no deposit, the above procedure is followed. (e) Non-returnable drums are accumulated in truck load quantities and are sold to cooperage companies, with separations being made on steel, fibre and wooden."

Dwight Epperson, superintendent of West Boylston (Ala.) Mfg. Co., was named to the executive committee of the Alabama Textile Operating Executives, to succeed J. H. Canady. Mr. Canady had been with Montgomery Cotton Mills, which recently closed.

New Conveyor Solves Elevator Problems

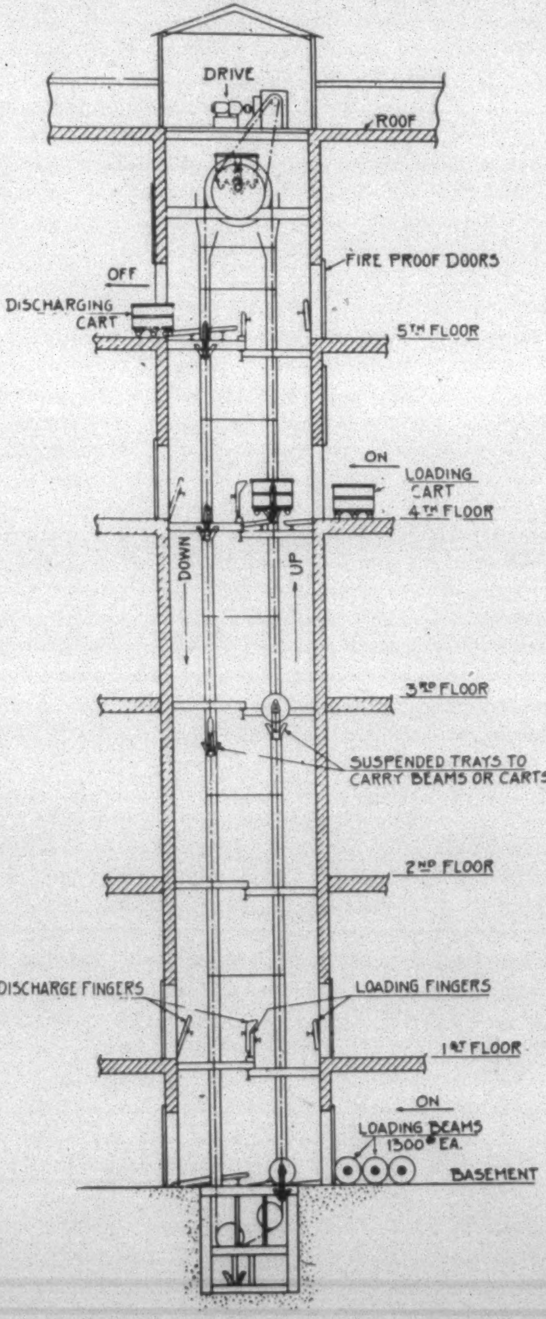
A new six-story-high vertical-chain conveyor at the Firestone Textiles Division of the Firestone Tire & Rubber Co., Gastonia, N. C., solves inter-floor handling problems common to many multi-story plants. The ferris-wheel-like con-



Truck full of yarn packages is positioned on the Firestone "ferris wheel."

veyor, engineered and manufactured by the Gifford-Wood Co., of Hudson, N. Y., transports box trucks between floors of the plant to reduce manual handling and free elevators for other duties. This particular installation handles large cylindrically-shaped beams of rayon as well as box trucks.

Box trucks, which might contain any commodity depending upon what a given plant produces, are pushed out into the shaftway on retractable "fingers," or shelves. "Trays" pick up the trucks, carry them up and over the drive sprockets and down the other side where they are deposited on discharge-floor fingers. Trays are suspended between endless chains, one along each side of the shaftway. Fingers are retracted except at loading and discharge floors. Automatic safety devices and interlocks prevent conveyor operation unless loading and discharge stations are ready and clear.



Plan view of the Gifford-Wood installation at Firestone Textiles.

This type of conveyor can be tailored to meet specific plant conditions and product requirements. When large quantities of a given item—such as sectional beams—must be handled between floors it often is economical to provide a vertical conveyor designed specifically to handle that commodity.

The conveyor is automatic and requires no manpower except to push trucks into the shaftway at the loading floor and take them away at the discharge floor. Elevators are left free for other duties and the conveyor, since it carries no people, is free of most insurance and safety regulations which apply to elevators.

29,000 See Air Conditioning Show

A huge panorama, the 11th International Heating and Ventilating Exposition just now has effectively portrayed the record-breaking progress of an industry that has attained its present immense stature in scarcely more than 20 years, developing an art that has been known for nearly 20 centuries. The exposition set new records of progress in its disclosure of new designs for human comfort and in processing air for industrial uses. Exceeding any previous exposition of its kind, it is one of the greatest industrial expositions in every field, filling the International Amphitheatre at Chicago, its huge arena, the wings and second floor. Bristling with modernized equipment largely based on new techniques, it strongly reflected the influence of organized engineering as practiced by members of the American Society of Heating and Ventilating Engineers, sponsor of the exposition. The A.S.H.V.E. held its 59th annual meeting in Chicago Jan. 26-30, the five-day run of the show.

The scene in the great amphitheatre pictured the expanse of the industry, which first gained recognition through these biennial expositions 30 years ago. Spread out from end to end of the first floor of the vast auditorium were some 250 exhibits, displayed in the colorful, dramatic manner of the modernized industrial display. Boilers, furnaces, pumps, blowers, registers, thermostats, regulators and many other kinds of equipment were there. And on the second floor more than 150 other booths were massed in similar assortments, filling the space in north and south halls and the connecting passageway. The total number of exhibits, 431, was greater than at any previous heating and ventilating exposition.

An audience of 29,000 persons circulated through the aisles, examined the displays and conversed with the personnel at the booths during the week. At the engineering society convention at the Conrad Hilton Hotel there was a stated attendance of nearly 3,000 from the 51 chapters of the A.S.H.V.E. distributed over 40 states and the membership at large. The general attendance at the amphitheatre, drawn from the entire United States and many foreign countries of the free world was composed of scientists, architects, engineers from many different lines of industry, developers, contractors and builders, manufacturers of many different products, distributors and dealers of heating and air conditioning equipment, and others similarly interested.

Material on exhibition embraced every form of equipment that is on the market for the treatment of air. Such equipment may be designed to attain one of four basic purposes, singly or in some combination of two or more. Every exhibit rested on this four-square foundation. The four basic methods of treating air were shown to serve the purpose of maintaining temperature, controlling moisture content, or purification, or distribution. Single-purpose appliances, therefore, heat or cool, moisten or dehydrate (humidify or dehumidify), filter or treat, otherwise circulate or blend. Multiple-purpose apparatus combines any or all of these functions perhaps in an elaborate system or perhaps a compact and remarkably comprehensive small size unit. Appliances in these various classifications may serve a spot or a restricted space, or they may be incorporated in central stations serving multiple-room structures or groups of buildings.

Most of the appliances exhibited for industrial applications were components for assembly into designed systems. Of such were chillers for water and other liquids, pumps and compressors, heat exchangers, cooling towers and evaporative coolers, fans and blowers; also oil and gas burners, electric motors, steam boilers (of the unified-assembly, quick-starting, fast-steaming types).

There was also a large number of displays of connective and control apparatus. This is applicable to the entire field of heating, ventilating and air conditioning, including the industrial applications. In this segment of the exposition was shown piping, tubing and valves, switches, starters and controllers of various kinds; thermostats, thermometers, humidistats, and gauges; as well as control systems ranging from the relatively simple equipment required to regulate the heating and cooling equipment in private homes to the comprehensive brain and nerve centers that have been contrived to master-mind the air conditioning systems of multi-spaced structures, warehouses, factories and refrigerating plants.

Lubrication Engineers Meeting April 13-15

The eighth annual meeting of the American Society of Lubrication Engineers will be held at the Hotel Statler, Boston, Mass., April 13-15. The feature on Monday, April 13, is a management session with R. M. Jones of Saco-Lowell delivering a paper on "Textile Machinery Lubrication from Management Point of View."

New Driver Training And Safety Movie

A new training and safety film for industrial truck operators has been produced by the Clark Equipment Co. The new 30 minute sound movie, titled "Safety Saves," was filmed at on-the-job factory and warehouse locations. It dramatically illustrates the "do's and dont's" of safe driving, and shows the cause of most truck accidents and how to avoid them. For truck owners who want to reduce accidents and cut damage-to-goods, the new movie will be a valuable training tool. It is the only training film of its kind in existence.

The "villain" of "Safety Saves" is Willie the Cowboy, a lad who drives his fork truck like a hot-rod. Willie is the kind of driver who doesn't look where he's going, ignores overhead clearance, and parks his truck in the middle of busy aisles. In other words, Willie is a menace—to fellow employees, to the goods he's handling, and to himself. The narrator of the film patiently tries to teach Willie the error of his ways, and he nearly succeeds. But unfortunately, before Willie finally learns his lesson, he makes one mistake too many. Poor Willie is carried away from the last scene on a stretcher. The wonder of it is how he lasted as long as he did.

Along with these horrible examples of how not to handle a fork truck, the movie shows the safe, correct method. Besides fork truck operation, "Safety Saves" contains instructions for operators of towing tractors and hand trucks.

Industrial truck users were enthusiastic in their acceptance of Clark's "Safety Saves" cartoon booklet, published in 1951. The "Safety Saves" movie was produced in response to hundreds of requests from truck users who expressed the need for a driver training film. "Safety Saves" was made available on a loan basis March 1. For a reservation form, write the Clark Equipment Co., Industrial Truck Division, Battle Creek, Mich.

Materials Handling Circus On Tour

At Miami, Fla., in a circus atmosphere, the world's first big-time traveling materials handling show hit the road on Tuesday, Feb. 24. Before the run is over two giant trailers will have toted the 68 by 40 Big Top and its paraphernalia twice across the continent, up into Canada, down into Mexico—25,000 miles and two years away from opening night.

Assembled by Yale & Towne Mfg. Co., Philadelphia, the spectacular venture is a pioneer move by heavy industrial equipment makers in take-it-to-the-customer merchandising. In this industry customers are still lining up, however, for the labor situation and rising costs have dictated that of every production dollar spent in the United States, 33 and one-third cents now goes for materials handling.

Stars of the unique show are the latest types of materials handling equipment in acts which demonstrate dramatically the strength and dexterity of the trucks and hoists and attachments.

In discussing the show, Elmer F. Twyman, vice-president of Yale & Towne and general manager of the materials handling company said, "There is a compelling need of bringing modern materials handling experience to thousands of businesses and hundreds of communities that are not yet fully aware of the labor-aiding, cost-saving functions such equipment contributes. Throughout the United States many businesses of every kind are caught in the squeeze of a depleted labor reservoir and the high costs of operations. Through our traveling materials handling equipment show we hope to bring the lesson home, right to the back yard of businesses, big and little, everywhere in the country."

Although the show is planned to demonstrate to businessmen how they can use Yale equipment, the acts have an entertainment appeal for all. For example, when Newcombe C. Baker Jr., show manager, wants to talk up "exceptional maneuverability," he chucks a thin dime on the ground and literally spins a 3,000-pound capacity standard gasoline-powered fork-lift truck on it. In demonstrating how smoothly the fluid drive unit operates, he sets a glass full of water on one of the monster's steel arms, pushes a control button and presto! the glass is six feet up in the air —with every drop still in the glass.

When Yale's electric truck makes its entrance, it comes zipping in at top speed, without warning the driver leaps from the control seat out onto the ground. Before he gets his balance, the truck is stock still. Demonstrates a safety feature of all Yale electric trucks—when the operator leaves the truck, the seat rises automatically thus cutting off all power and applying the brakes instantly. There are other demonstrations for other pieces of equipment.

Seven men are needed to put on the show—seven men and two giant, specially-constructed trailer rigs pulled by an International tractor and a Dodge. In addition to the materials handling equipment, music and movie equipment, 100 lightweight arm chairs for spectators, generators, battery chargers, promotional material and the bulky pavilion tent must all be loaded before the show can go on to the next town.

After leaving its site next to Dinner Key Auditorium, Miami, the show played in Jacksonville, Fla., Feb. 26, Savannah, Ga., Feb. 27, and New Orleans, La., March 4.

Before it reaches the fifth National Materials Handling Show to be held in Philadelphia in May, it will play in Shreveport, Beaumont, Houston, San Antonio, Dallas, Fort Worth, Oklahoma City, Tulsa, Memphis, Chattanooga, Atlanta, Birmingham, Mobile, Raleigh, Norfolk, Richmond, Washington and Baltimore.

In each city the local Yale & Towne distributor will cooperate in putting on the show and serve as host to the audience. In his own area he may demonstrate additional pieces of equipment which he knows to be of particular interest to his customers. He will also add any specialized lifting, carrying or stacking applications which he may desire. In every locality the desire is to demonstrate to local businessmen how they can solve their materials handling problems.

Materials Handling Show Slated May 18-22

A group of 42 speakers, representing many of the outstanding industries in the country, will head workshop seminars at the Materials Handling Conference which will be held concurrently with the fifth National Materials Handling Exposition at Convention Hall, Philadelphia, May 18-22. The exposition, which will be the largest capital goods industrial show to be held anywhere in the country during 1953 and the largest ever held in Philadelphia, will have 3,000 experts on hand to answer visitors' questions, according to Clapp & Poliak Inc., New York, founders of the show.

The American Materials Handling Society, an organization composed of users of handling equipment, is conducting the conference. The sessions, which will cover five basic aspects of materials handling, will permit each visitor to spend nine hours in a workshop discussion of a single aspect of his work, or three hours on each of three subjects. This intensive approach has never before been attempted on a national scale, society officials pointed out. In view of the fact that most of those attending the conference will be authorities on the subject in their own right, the sessions are expected to provide many important new ideas on handling problems, it was stated.

Conference sessions will take place from 9 a.m. to noon on three of the five days of the show. The morning hours have been set aside so that there will be no conflict with show attendance. The five topics, each of which will be the subject of a seminar on each of the three days, include "Handling in Process," "Warehousing and Shipping," "Packaging for Improved Handling," "Bulk Handling," and "Requirements for Organization, Study and Analysis."

More than 25,000 visitors from 40 countries are expected to attend the show. Arrangements to house visitors have been made in Philadelphia, Atlantic City and New York. Those desiring advance registration cards, information about the conference and hotel reservations may obtain them from Clapp & Poliak Inc., 341 Madison Ave., New York 17, N. Y.

Textile Electrical Conference April 23-24

Of special interest to those in the maintenance department, a textile electrical conference, sponsored by the textile section of the American Institute of Electrical Engineers, will be conducted April 23-24 at the A. French Textile School of Georgia Tech, Atlanta.

The Thursday morning session will be devoted to the discussion of the practical merits of the present undergrounded 550-volt, three-phase, 60-cycle, three-wire power versus the proposed grounded neutral three-phase, 550-volt, 60-cycle system under consideration by several engineering concerns. There will be two speakers devoted to this program.

Thursday afternoon sessions, with three speakers, will be devoted to lightning and lightning protection for various arrangements of textile mill buildings.

The Friday morning session will be devoted to discussions of motor torque requirements, motor over-current protection and control connections with a concluding session on various phases of electrical maintenance in textile plants.

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By F. O. STONE – Part Two

AS NOTED in Part I of this series, the direct dyestuffs are substantive in nature and possess an affinity for cellulosic fibers (cotton, linen, viscose rayon, etc.), this dyeing exhaust is accelerated by use of electrolytes such as sodium chloride (common salt) and sodium sulfate (Glauber's salt).

The direct colors were the first group of coal tar dyes developed into a full range of colors for dyeing cotton though possessing only a moderate degree of fastness to light, washing, perspiration, etc. Then other types of colors possessing a higher fastness rating were discovered and manufactured; these being the sulfurs, vats and naphthols. The dyestuff makers discontinued further development of the direct range of dyestuff until the 1920s and 1930s. Improved classes of direct dyes were then developed (dyeing as direct color then diazotizing and developing with developers such as beta naphthol, etc.) This group gave improved wash fastness with moderate light fastness. The trend has been to develop faster to light colors and simple types of after-treatable direct dyes that gave both improved fastness to washing and light. Some of these dyes were classed under fast-to-light types (Benzo Fast later called Fastusols, Solantine, Chlorantine, Solephenyl, Superlitefast). The after-treatable group of direct colors included the formaldehyde and copper compounds such as Cuprofix types (Sandoz 6).

This continued improvement of the direct dyes has made for more chemically complex dyeing compounds which are larger dye particles than were originally known as direct dyes. The improved fast-to-light types are sometimes made with metallic groups in their chemical structure as well as other changes in composition. These chemical changes in these directs make for larger dye particles which tends for less solubility and slower exhaust rate onto cellulosic fibers. Higher dyeing temperature and use of different types of dyeing auxiliaries has been found necessary to obtain satisfactory penetration and levelness of dyed shades on natural and synthetic cellulosic fibers, yarn and fabrics.

It has been found best to consider the value of these auxiliaries on their properties of: (1) dispersing and solubilizing these larger particle dyes; (2) rate of wetting out and penetration into fibers, yarns and fabrics and whether the dye solution is being carried into the fiber and fabric under similar conditions as is the auxiliary; (3) leveling action that auxiliary exerts on the direct dye bath at various temperatures, dye bath concentration and method of application; these should possess retarding action on dyes also.

Evaluation of these auxiliaries from a practical application viewpoint to promote levelness and penetration on dyed goods would classify the auxiliaries under these headings: pressure machines, dyeing of yarns, and package and beams. Use of rapid wetting-out agents with lowest foaming possible—this would include—sulfonated esters: Surfax WO (Houghton & Co.), Seyco 2600 (Seydel-Woolley), and Ahcowet RS (Arnold-Hoffman). Leveling agents: Levelene (American Aniline), Triton NE (Rohm & Haas), Peregal O (General Dyestuff Corp.), Polyvat (Royce Chemical Co.). Aryl alkyl sulfonates: Ultrawet 6OL (Atlantic Refining), Santomerse (Monsanto Chemical Co.), Alkanol WX (Du Pont), Nakal NF (General Dyestuff Corp.). These agents may be used advantageously on padding these types of improved direct dyes.

On dye becks and jiggs the slower wetting-out agents in combination with leveling agents have been found rather practical. Sulfonated alcohol and long chain compounds: Petrowet WN (Du Pont), Orvus ES (Proctor & Gamble), Igepon T (General Dyestuff), Protex gel (Ciba), Calsolene Oil H (Arnold-Hoffman), Tergitol No. 7 (Carbide & Carbon Chemical Co.). There are other types such as sulfonated amides, phosphated complex sulfonates and other classes of products that give good working and leveling value in dyeing.

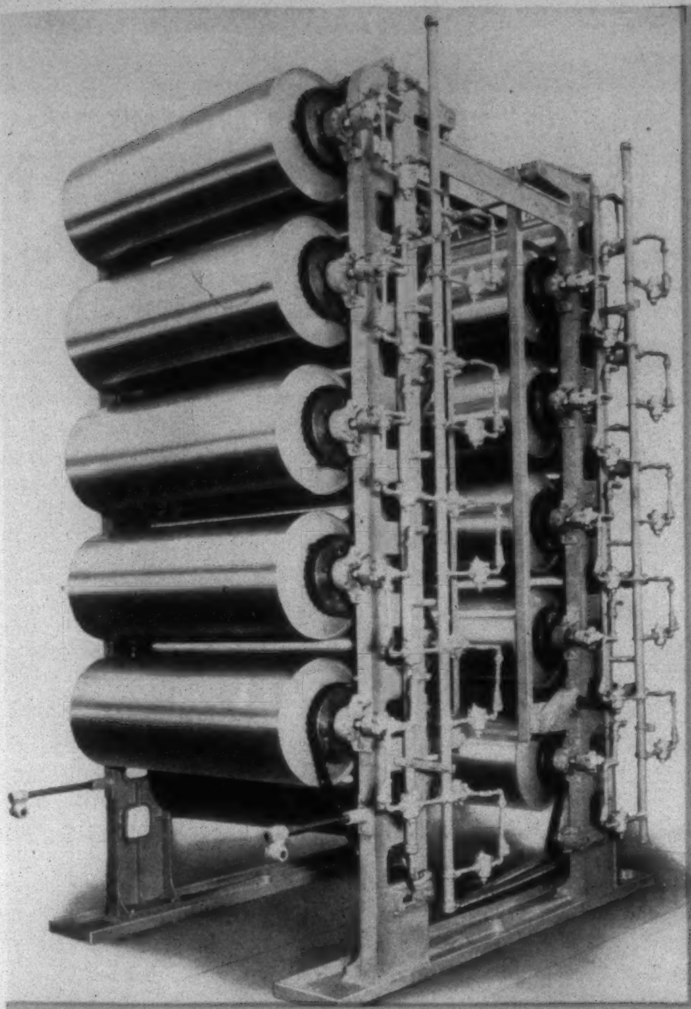
An important property of all auxiliaries used nowadays with these improved classes of direct dyes is their degree of re-wetting action and how it may affect the end-use of the dyed material on subsequent finishing operation. The importance of this re-wetting property is that if the dyed material is to be employed for end-uses such as knitgoods, underwear, and outerwear that do not require subsequent resin treatment or waterproofing, then the re-wetting property does not enter into consideration.

On any material requiring subsequent waterproofing and resin treatment then the re-wetting value of auxiliary used must be very low as it will affect these finished goods by reducing the spray rating and life of resin treatment.

This property of re-wetting is of great value on goods to be given sanforizing and shrinkage control treatment. The chemist and dyer may consider they have the ideal auxiliary formula to obtain level-dyed and well-penetrated material only to find the hidden property of re-wetting affects the finished fabric and must be changed.

Acetate Dyes

Acetate dyes as used in the dyeing of acetate and nylon are known as direct dyeing colors and may be classified under direct dyeing and the diazo and developed groups. The direct dyeing acetate dyes are insoluble pigment type of dyes distinctly different from the direct dyes which actually dissolve and from that solution exhaust themselves



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onto cellulosic fibers whereas the direct dyeing acetate dyes react and combine on and into the cellulose acetate and nylon fibers and fabrics.

This physical character of the direct dyeing acetate dyes requires the use of auxiliaries possessing high dispersing action on these insoluble pigmented dyes. It is also desirable to have auxiliaries in the dye bath that will wet out and penetrate the acetate fiber which is of hydrophobic (low water content) nature. In obtaining high dispersion value in the auxiliaries, they tend to foam heavily and defoaming agents must be used to prevent too high a foamy action in the dye bath.

Another property that must be carefully checked on the auxiliaries used with acetate dyes is that of retarding or stripping action during the dyeing operation.

Cellulose acetate is sensitive to saponification if the bath is too alkaline and affected by auxiliaries possessing solvent and plasticizing action; for this reason soap is not used as widely in dyeing acetate as formerly and penetrant and defoamers containing pine oil are not widely used. Soap is possibly the most efficient dispersing agent for direct dyeing acetate dyes but has been replaced due to the danger of saponification "spotting" during the dyeing operation. Pine oil compounds have been replaced by auxiliaries free of plasticizing action on acetate and nylon during the dyeing of direct dyeing acetate dyes.

These types of auxiliaries have been found useful for dispersing of acetate dyes and satisfactory for obtaining level dyed acetate and nylon fabrics. Sulfonated alkyl aryl compounds: Santomerse (Monsanto Chemical), Seyco 1708 (Seydel-Woolley), Ultrawet 6OL (Atlantic Refining Co.), Orvus Granules (Proctor & Gamble), Nacconal (National Aniline). Sulfonated fatty alcohols and condensation compounds: Igepon T (General Dyestuff Corp.), Dyponel (Du Pont). Poropon SA (Arkansas Co.), Orvus ES (Procter & Gamble), Decerosol OT (Cyanamid Corp.). Defoaming agents: Anti-Foam A Emulsion (Dow Corning Co.), and Depuma (American Aniline).

Increased Output From Dry Cans

– Special Contribution –

IN NORMAL times a piece of finishing equipment which becomes outdated is replaced by a more modern type, usually having increased output at less cost. In these days it often pays to investigate efficiency of existing plant equipment in order to see what can be done by means of reconstruction to achieve higher efficiency. This method may be difficult, or impossible in the spinning or weaving departments, but it can work admirably in the finishing and auxiliary departments on steam-heated equipment. Let us see what can be done on several examples to increase output by applying comparatively simple means.

Take dry cans for example, and look closer into their steam consumption and utilization. To evaporate one pound of water from textile material on a steam-heated cylinder requires at least 1.4 pounds of steam and often considerably more. To extract one pound of water from the material by squeeze rolls or in a hydro-extractor needs much less than the equivalent amount of power. But squeeze rolls and hydros will only remove water down to about 30 to 35 per cent of the dry weight of the material. The final drying down to, say, five per cent of the dry weight is usually done by steam heat.

However, the more water that can be removed mechanically before the material reaches the drying cylinders, the greater will be the output and the lower the steam consumption of the machine and the steam cost per pound of dried material.

It pays to maintain squeeze rolls and hydros at maximum efficiency. This can best be checked by making regular and frequent tests for efficiency by weighing sample pieces after mechanical drying and comparing the final dry weight. Should the amount of water left in the material after squeezing or hydro-extracting tend to increase, check the condition of the mangles, the tension on the rolls, hydro speed, condition of hydro basket, and the running time. Because cold water runs less freely than warm water, the efficiency of extraction in a hydro tends to increase if the material is warm. Too cold a final rinse means more water left in the material after hydro-extraction, and decreased dryer output.

Steam-operated Suction Dryers

The steam consumption of an ejector or suction-type pre-drier is out of all proportion to the amount of water extracted. However it does increase the drying rate on the steam cans. The objective should be maximum extraction for the steam used. The suction of the machine should be limited to the width of the piece by blanking off the ends with a rubber sheet (automobile tire inner tube is ideal (see Fig. 1). By doing this, all the air is drawn through the fabric by the suction of the ejector and the best drying effect obtained. The ejector should never run when the machine is idle as this simply wastes steam. A steam ejector working on 100 p.s.i. steam takes about 350 to 400 pounds of steam per hour. Because operators tend to overlook waste

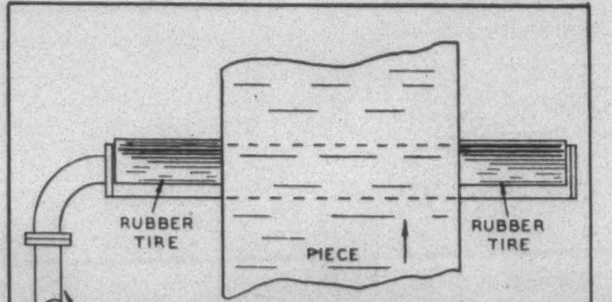

Fig. 1—Method of improving efficiency of suction dryer.

of this kind, it is best to fit an automatic valve on the ejector steam supply and interconnect this valve with the power supply of the machine drive motor. When the machine stops, the steam to the ejector is automatically cut off.

In the case of a motor valve interconnected with the driving motor of a can dryer, the heat value of the steam leaving the ejector is almost equal to that of the supply steam—but its temperature is lower and it has air mixed with it. It is quite good enough for water heating, however, so why blow it out on the roof? Two hundred and fifty gallons of water per hour at 212° F. can be provided by simply allowing it to blow into the hot water storage tank. A temperature regulator on the main water heater will reduce the steam load when the ejector steam is helping.

Output from textile cylinder drying machines can be restricted and cost of operation increased by slow heating up from cold, irregular and uneven drying, excessive steam consumption, waterlogging, or air binding.

Maximum efficiency in textile cylinder drying machines can be had only (a) if the steam spaces are kept full of steam at the correct pressure and temperature, and (b), if the heated surfaces are able to transmit, evenly and continuously, the full heat value of the steam. The first consideration is the steam supply. If the steam cannot flow into the cylinders without much loss of pressure, and if it carries much pressure, output will be effected.

To begin with, it is advisable to make sure that there is no steam starvation through inadequate steam connections. The next step is to see that the steam supply is as free as possible from moisture. In Fig. 2 you will see the recommended method of insuring a continuous supply of dry steam to drying machines. Slow heating up from cold, irregular and uneven drying, excessive steam consumption, and frequently wastage of dried product are caused by air binding, waterlogging, and steam locking.

The ill effects of these three enemies of output, of quick-heating up from cold, and of wastage of steam can be overcome by proper air venting and steam trapping. This system which has been extensively used in textile mills in England, has been only recently introduced in the United States.

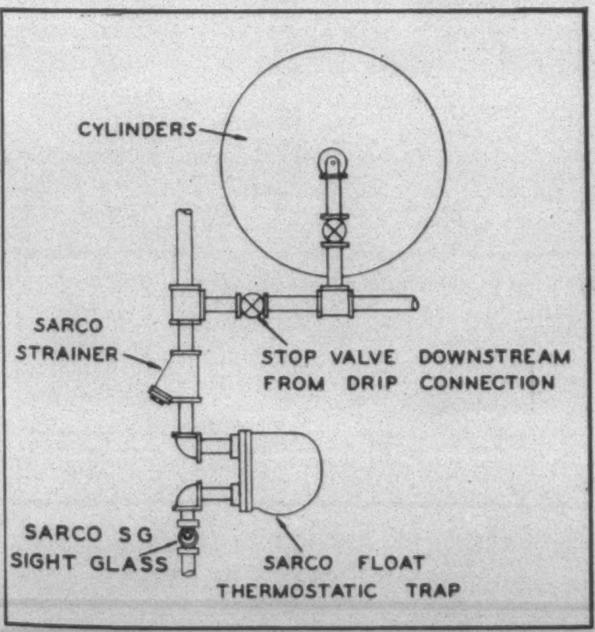
CYLINDERS
SARCO STRAINER
STOP VALVE DOWNSTREAM FROM DRIP CONNECTION
SARCO SG SIGHT GLASS
SARCO FLOAT THERMOSTATIC TRAP

Fig. 2—Method of insuring dry steam supply to cylinders by steam trapping supply line.

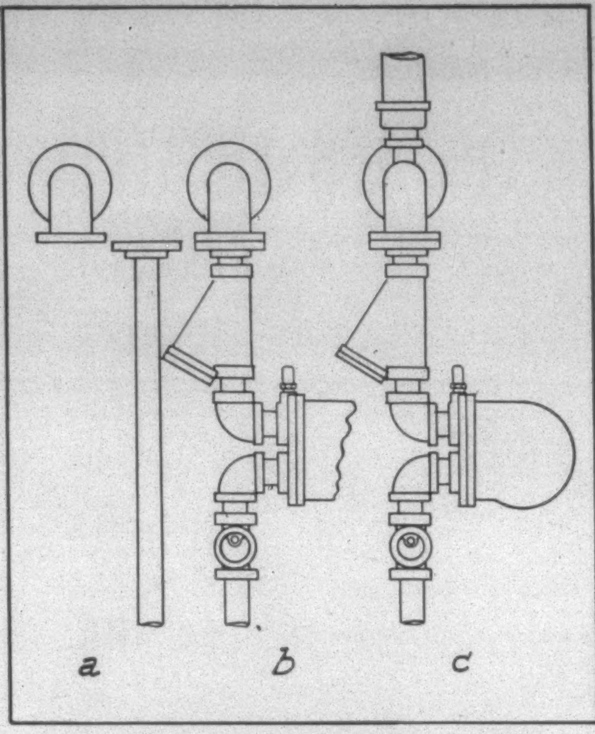

Fig. 3—The three stages of fitting a Sarco system unit.

The large volume of air which is present in the cylinders when steam is turned on, and the air which continues to enter with the steam during the course of running, is discharged rapidly by the thermostatic air venting unit of the system. These are the main advantages claimed by the makers: (1) More rapid heating from cold. (2) More even cylinder surface temperature, insuring uniform drying. (3) Improved output by preventing air film insulation and waterlogging of cylinders which reduce surface temperature. (4) Prevention of steam locking. (5) Maximum economy of steam consumption. (6) Less delay due to re-processing of under-dried material. (7) Visual check on the working of individual cylinders by observing condensate flow. (8) Simplicity of installation on existing machines.

Fig. 3 shows the method of fitting: (a) the original drain pipe is disconnected at the flange, and the companion flange is unscrewed and connected to the main inlet of the drainage assembly of the Sarco system; (b) this is coupled to the joint flange, and the outlet from the sight glass is connected to the common condenaste line; (c) the top of the joint is drilled and tapped for the air venting assembly of the Sarco system.

If the joint can be conveniently turned through 90°, installation is even simpler. The Sarco system unit can be furnished in one complete assembly. This method is quite simple on cylinders with bucket water lifters. On cylinders with siphon pipes, care should be taken to make sure that the siphon pipe is in the vertical position after the joint has been turned. The condensate should be returned to the feed tank for maximum economy. It is usual to leave the air vent outlets open to atmosphere, but these, also, may be connected to the condensate return line if need be. The makers recommend that if the condensate has to be lifted to an overhead line, a check valve should be installed after each system sight glass.

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Promotions, Resignations, Honors, Transfers, Appointments, Elections, Civic and Associational Activities

PERSONAL NEWS

Dr. Harry W. Grimmel *(left)* has been elevated from general manager to president of Metro Dyestuff Corp., West Warwick, R. I., a subsidiary of Metro-Atlantic Inc. A native of Germany, Dr. Grimmel came to the U. S. in 1926 and before joining Metro Dyestuff in 1948 was associated with Grasselli Dyestuff Corp. and General Aniline. . . . Charles M. Lindsay Jr. *(at left, below)* has joined the Southern sales service staff of Metro-Atlantic and will cover Alabama, Georgia, Tennessee, Mississippi and Louisiana from headquarters at Greenville, S. C. Mr. Lindsay's previous associations include Lane Cotton Mills Co., Pacific Mills and Gold-Tex Mfg. Co. . . . John J. Fantry *(right, above)* is another addition to the staff at Metro Dyestuff Corp. where he is serving as chemist in charge of the firm's newly-formed textile pigments department. Mr. Fantry was connected with Sun Chemical Corp. before joining Metro. E. R. Adair has joined the sales and service organization of Metro-Atlantic Inc. and will cover the Southern territory from headquarters in the company's Greenville, S. C., branch. During the past two years Mr. Adair has been associated with Henry Papini, now vice-president of Metro-Atlantic, and its subsidiary, Metro Dyestuff Corp. Before joining Metro-Atlantic, Mr. Adair was connected with Southern Bleachery & Print Works, and Interchemical & Southern Dyestuff Corp.

J. S. Ballinger has joined Dan River Mills, Danville, Va., as superintendent of weaving at the Riverside Division. Also joining the Riverside supervisory staff is T. S. Featherston who will be shift overseer of dyeing in No. 8 dye. . . . Other promotions at Dan River include: C. J. Jordan, Danville native with the company for 20 years, promoted to section superintendent in charge of carding and spinning in Schoolfield Division One; Earl D. Jones, with the company since 1946, named to the newly-created post of technical advisor on carding and spinning; George W. Ray, who joined Dan River last July, promoted to general overseer of finishing at the Schoolfield Division; and Eddie Radford, with the company since 1930, made department overseer of No. 3 twist mill.

Von D. Oehmig has been appointed sales representative for the factoring division of Crompton Richmond Co. Inc. and will concentrate his efforts in the states of Georgia, Alabama and Tennessee. Mr. Oehmig was associated with Muscogee Mfg. Co., Columbus, Ga., before accepting his new position.

David H. Roberts, formerly overseer of weaving for Spartan Mills, Spartanburg, S. C., is now superintendent of Lydia Cotton Mills at Clinton, S. C. As superintendent of Lydia he succeeds J. B. Templeton, who in December was made vice-president in charge of manufacturing at Lydia as well as Clinton Cotton Mills.

Dr. W. E. Coughlin, a prominent figure in textile consumer work for more than 20 years, has been appointed director of consumer services of the textile division of Celanese Corp. of America. He will work closely with the dry-cleaning and laundering industries, the cutting-up trades, and engage in other educational activities. For the past nine years, Dr. Coughlin was a senior editor and director of the textile laboratory of *Good Housekeeping* magazine. From 1930 to 1944 he was with Celanese as research associate in the dry-cleaning and laundering fields. . . . John P. Holmes, vice-president and special assistant to the general manager of the Celanese textile division, has been named chairman of the warp knit fabric manufacturers group of the National Federation of Textiles. He succeeds George V. P. Marks, formerly vice-president of Julius Kayser & Co.

W. Eugene Hunter of Charlotte, N. C., has joined Bryant Electric Repair Co. of Gastonia, N. C., as engineer for the company.

David A. Kuniholm, in addition to his duties as manager of the industrial roll division of Rodney Hunt Machine Co., Orange, Mass., also has been named manager of the firm's newly-formed special products division. The new division makes stainless steel tanks and machinery for the chemical industry.

Robert L. Huffines Jr. *(left)* has been elected president of Textron Inc. succeeding Royal Little, founder of the company, who becomes chairman of the board of directors and chairman of the executive committee. Mr. Huffines also was made a director and a member of the Textron executive committee. Prior to accepting the Textron presidency Mr. Huffines had been with Burlington Mills since 1941 and since 1947 had served as president of Burlington Mills Corp. of New York as well as director and executive vice-president of the parent company, from all of which positions he has resigned. A native of Rocky Mount, N. C., Mr. Huffines attended the University of North Carolina and is a graduate of the Philadelphia Textile Institute.

Joe L. Barnett has joined Perfection Spinning Co., Belmont, N. C., as secretary-treasurer and a director. Mr. Barnett formerly was associated with Trenton Cotton Mills Inc. of Gastonia, N. C. At Perfection Mr. Barnett replaces the late DeLambert Stowe.

W. A. L. Sibley *(at left below)* and F. Sadler Love *(right)*, president and secretary-treasurer, respectively, of the American Cotton Manufacturers Institute, were awarded honorary degrees of membership in Phi Psi, national textile fraternity, March 5 at Clemson (S. C.) College. The degrees were awarder by the Grand Council of Phi Psi through the Iota Chapter of the fraternity at Clemson College.

George O. Porter, who before joining the Ely & Walker Dry Goods Co. textile manu-

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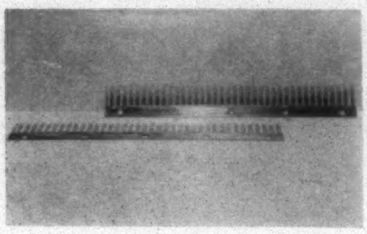

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facturing division was superintendent of weaving for Borden Mills at Kingsport, Tenn., is now superintendent of Hart Cotton Mills, Tarboro, N. C. He succeeds F. M. Fowler at Tarboro.

Bruce D. Hodges Jr. has joined the sales staff of Howard Bros. Mfg. Co., Worcester, Mass., and will cover the Carolinas territory from headquarters in Gastonia, N. C. A 1943 graduate of the School of Textiles at N. C. State College with a B.S. in textile manufacturing, Mr. Hodges for the past 7½ years was associated with Burlington Mills Corp., serving in various supervisory capacities at Bur-Mil plants in Gastonia, Greensboro and Fayetteville, N. C.

J. L. Woodward, an overseer at the Fountain Inn, S. C., plant of Woodside Mills, has been elected to the Fountain Inn town council. . . . Marshall A. Rauch, who is associated with several textile plants in the Gastonia, N. C., area, has announced his candidacy for the Gastonia city council in the May 5 election.

William R. Austin has been elected a vice-president of Avondale Mills, Sylacauga, Ala., and Larcus B. Allen has been promoted to assistant vice-president. Their duties remain the same. Mr. Austin is assistant secretary and Mr. Allen is assistant sales manager for yarns.

Harry E. New has been appointed resident technical sales representative for the Chemstrand Corp. and will make his office at Decatur, Ala., where the firm's manufacturing plant, multi-unit research center and administrative headquarters are located. Mr. New has been associated with American Viscose Corp. for the past 14 years. He has been in charge of the cotton division of the textile research department for four years, and was one of the original group who formed a textile research department for A.V.C. in 1939. A native of Greenville, S. C., Mr. New was graduated from Clemson (S. C.) College with a bachelor of science degree in textile engineering. He is a member of Phi Psi honorary textile fraternity and the American Society for Testing Materials.

Drs. George E. Ham, Clarence I. Johnson, Rutherford B. Thompson Jr., and Messrs Edward H. Sundbeck and Peter B. Hermes are recent additions to the research and development department of the Chemstrand Corp., Decatur, Ala.

Stiles R. Fifield of Memphis, Tenn., will join Fieldcrest Mills, Spray, N. C., on April 1 as director of raw materials purchasing and will be responsible for the purchasing of spot cotton and for advising the management on general cotton policies. . . . J. S. Ragsdale will continue to buy wool, woolen and synthetic materials for the blanket mill and woolen and worsted yarns for Karastan.

John H. McCormick has been named manager of the recently-opened Southern district sales office at Charlotte, N. C., of the textile fibers department of Carbide & Carbon Chemicals Co., producer of Dynel staple fiber. Mr. McCormick has been with the company since 1948, shortly after his graduation from the University of West Virginia.

M. A. Kirkland *(left)*, manager of Winnsboro (S. C.) Mills of the textile division of United States Rubber Co., recently was elected president of the Winnsboro Rotary Club. . . . Other textile executives elected to Rotary positions include Earl Brown of Leaksville, N. C., comptroller of Fieldcrest Mills, elected president of the Leaksville-Spray Rotary Club; and Emmett Williams, manager of the Lincolnton, N. C., plant of the Duplan Corp., named secretary and treasurer of the Lincolnton Rotary Club.

H. Wickliffe Rose is resigning June 1 as general assistant to the president of American Viscose Corp. to join Linen Thread Co. where it is understood that he will become president of that company July 1 upon the retirement of David L. Malcolm, now president. Mr. Rose joined Avisco in 1924 as Southern sales manager and opened the first rayon sales office in the South a year later at Charlotte, N. C. Since 1946 he has been serving in his present capacity as general assistant to the president.

Ed Uzzell has joined Mooresville (N. C.) Mills where he will be concerned with the control of finished fabrics. Before joining Mooresville Mills Mr. Uzzell was for ten years with North Carolina Finishing Co. and five years with Dan River Mills.

Officers of Burlington Mills Corp. were elected Feb. 25 at the annual meeting of the board of directors. J. Spencer Love, who founded Burlington Mills some 30 years ago at the city of Burlington, N. C., was re-elected chairman of the board and chairman of the executive committee. J. C. Cowan Jr., who has served as president since 1947, was re-elected. . . . In connection with the planned consolidation of Burlington Mills Corp. of New York, the Burlington selling organization, with the parent company, as recently announced, the vice-presidents of the New York corporation were integrated into the parent company. Herbert Kaiser was elected vice-chairman of the executive committee. The following other board members comprise the executive committee: Kenneth Collins, J. C. Cowan Jr., Walter E. Greer Jr., and John L. Hutcheson and S. Lewis Hutcheson Jr. . . . Two executive vice-presidents were re-elected. They are: Herbert M. Kaiser and Walter E. Greer Jr. Three new vice-presidents, who have not previously served in that capacity in either company, were elected. They are: Joseph A. Golden, John L. Hutcheson Jr., and S. Lewis Hutcheson. Mr. Golden has headed Burlington's men's wear sales division since the inception of that division several years ago. John and Lewis Hutcheson joined Burlington with the acquisition in November 1952 of the Peerless Woolen interests, for which they are chief executives. . . . Other vice-presidents elected are: Kenneth Collins, Morris Gardner, J. E. Garvin, Robert A. Gilliam, Charles L. Garli, David A. Gryder, John Harden, Walter S. Horne, F. A. Jenckes, W. G. Lord, A. L. McArthur Jr., Charles F. Myers Jr., W. Bailey Sellars, Jackson E. Spears, and Joseph H. Wright. . . . Elected as assistant vice-presidents were: E. H. Wilkins and Ervin A. Schutz. . . . Stephen L. Upson was elected secretary and counsel. Elected as assistant secretaries were: Douglas M. Orr, Gilbert E. Powell, W. F. Robinson and A. C. Turino. . . . C. Eugene Rowe was elected treasurer. Elected as assistant treasurers were: Carlton Barnes, Charles A. Kelly, W. S. Markham, W. F. Robinson and Ervin A. Schutz. . . . Henry E. Rauch was elected controller. Elected as assistant controllers were: Cecil F. Aramson, M. E. Manuel Jr., J. B. Pugh, R. N. Stokes and J. D. Womack.

Mary B. Reid has been appointed assistant sales manager for the Belmont (N. C.) Division of Aberfoyle Mfg. Co. Miss Reid joined Aberfoyle in December 1950 and prior to that held executive positions with the Charlotte, N. C., offices of Goodyear Tire & Rubber Co. and Southern Erection & Engineering Service. . . . Elliott J. Neal, vice-president of Aberfoyle, will continue to have over-all supervision of sales in the South.

Walter F. Woodward has been elected a director of Curtis & Marble Machine Co., Worcester, Mass. Mr. Woodward joined the company in 1918 and when the Southern office in Greenville, S. C., was established in 1924 he was selected to head that office. He has served in the capacity of Southern representative since that time, and it was in recognition of his outstanding service in that position that the stockholders elected him a director of the company.

Marshall Dilling Jr., who for nine years was associated with American Yarn & Processing Co. (now American & Efird Mills), has joined Howard Knit Products Co., Gastonia, N. C., as secretary and assistant treasurer. Howard Knit Products recently moved its plant from Bessemer City, N. C., to Gastonia.

James A. Hendley has been appointed manager of the textile division of Talon Inc. and will assume his new duties May 1. Mr. Hendley has been associated with Russell Mfg. Co., Middletown, Conn., since

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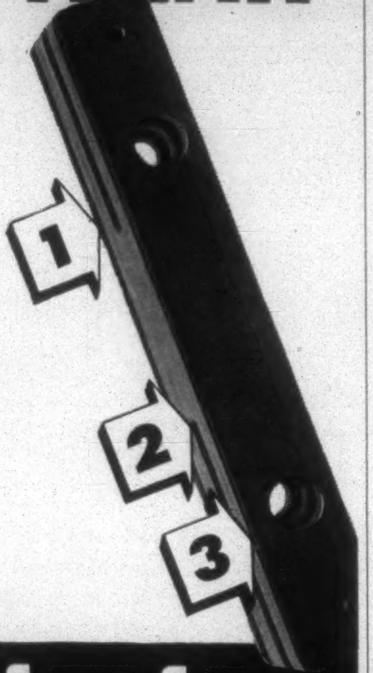

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1918 and resigns from that firm April 1. Mr. Hendley will make his headquarters at Stanley, N. C., where a plant for the manufacture of zipper tape is now under construction.

Herbert C. Erwin, head of the administrative and personnel departments at Milledgeville (Ga.) Mills, a division of M. T. Stevens Southern, has been made a director of the Exchange Bank of Milledgeville.

Bedford Martin, formerly first shift overseer of weaving at Clarkesville (Ga.) Mill, a unit of United Merchants & Mfrs., has been promoted and transferred to the Augusta, Ga., weaving division as general overseer of the weaving department.

J. C. Fortune has been appointed sales manager of American Bemberg, a division of Beaunit Mills, succeeding H. G. Spitzer, resigned. Mr. Fortune will continue in his position as advertising manager of American Bemberg.

Harry E. Beane has been appointed vice-president in charge of sales of the Bristol Co., Waterbury, Conn., manufacturer of automatic controlling and recording instruments. Mr. Beane has been associated with the Bristol Co. since 1920.

W. F. Crowder, for the past two years Southern sales representative of B. S. Roy & Son Co. of Charlotte, N. C., recently became associated with Clover (S. C.) Spinning Mills Co. as assistant manager.

Paul G. Gillespie of Reeves Bros., Spartanburg, S. C., has been named chairman of the textile division of the 1953 Red Cross Fund Campaign in Spartanburg. . . . James A. Chapman Jr., manager of Riverdale Mills at Enoree, S. C., will aid Mr. Gillespie as co-chairman of the division.

R. C. McCall, president and treasurer of Pinnacle Mills, Easley, S. C., recently resigned from the board of trustees of Pickens County School District A due to "heavy pressure of business and personal affairs" and has been succeeded on the school board by H. E. Russell, manager of Glenwood Mills in Easley.

Alfred G. New, superintendent of Judson Mills, Greenville, S. C., has been elected president of the Greenville Textile Club. C. J. Pride, manager of Dunean Mills, a unit of J. P. Stevens & Co., was elected vice-president of the club.

William D. Appel of the National Bureau of Standards recently was awarded a gold medal by Commerce Secretary Sinclair Weeks in recognition of his contribution to textile chemistry, technology and standards for many years.

E. R. Durrer has been elected president of Givaudan Corp. and its affiliate companies, Givaudan-Delawanna Inc., Givaudan Flavors Inc., Sindar Corp. and Givaudan-Foreign Inc. Mr. Durrer succeeds Dr. Eric C. Kunz, who had retired from the active management of the company in 1947 when Dr. Durrer assumed the executive management in his capacity as executive vice-president. . . . The other officers elected are: F. N. Bangs, vice-president and secretary; H. F. Duffy, treasurer; Dr. Max Luthy, vice-president in charge of production and research; and R. E. Horsey, vice-president in charge of sales. R. E. Vicklund continues as manager of sales and development of Sindar Corp.

John C. Irvin, *(left)*, Southern sales manager for Crompton & Knowles Loom Works, has been elected a member of the company's board of directors. Mr. Irvin joined Crompton & Knowles in 1921 and was office manager at Charlotte, N .C., prior to promotion to his present position in 1945. He will continue to make his headquarters in Charlotte. . . . Two new vice-presidents elected by the C. & K. stockholders are Oscar V. Payne *(at left, below)* and Harold R. Wing *(right)*. Mr. Payne, who is works manager, also was elected to the company's board of directors. He became associated with the firm in 1925. Mr. Wing has been with C. & K. since 1917. He was made supply sales manager in 1925 and a director in 1944. He also is a vice-president and director of Crompton & Knowles of Canada (Ltd.) and a director of Hutchinson Avenue Co., both wholly-owned subsidiaries.

J. A. Dickson has been appointed district sales manager for the Southeastern states for the steel strapping division of the Stanley Works, New Britain, Conn. He will also act as assistant to H. C. Jones, Southern district manager, and will make Atlanta, Ga., his headquarters. Mr. Dickson joined the Stanley Works as a sales representative for steel strapping in 1946, following four years with the Army. Prior to the war he was employed by Westinghouse Electric & Mfg. Co. in Atlanta.

Henry P. Goodwin has been named Southern district sales manager of Steel Heddle Mfg. Co., with headquarters in Greensboro, N. C. Prior to his recent promotion Mr. Goodwin was a specialty salesman for the company working out of Greenville, S. C.

Thomas M. Bancroft, president and a director of Mount Vernon-Woodberry Mills Inc., Baltimore, Md., has been elected a director of Alexander Smith Inc.

John A. Reagan Jr. has been named to the newly-created post of advertising and sales promotion manager of Sonoco Products

Co., Hartsville, S. C. For the past several years Mr. Reagan has been public relations manager and editor of the firm's house organ, *Sonoco News*.

A. E. Willis has resigned as industrial relations manager of Chicopee Mfg. Co., Gainesville, Ga., to join Calvine Cotton Mills Inc., Charlotte, N. C., in an executive capacity. Mr. Willis had been associated with Chicopee for 17 years.

Robert E. Staples *(at left, below)* and William B. Amos *(right)* are recent additions to the Southern sales staff of Stein, Hall & Co. Mr. Staples has been assigned to the firm's Charlotte, N. C., office and will cover Tennessee and western North Carolina. He is a graduate of Bradford Durfee Technical Institute and holds a B.S. in textile engineering. He also attended the Institute of Textile Technology. Mr. Amos will work out of the Atlanta, Ga., office and has been assigned the Alabama and Georgia areas. Before accepting his present position Mr. Amos was for 16 years associated with the Eagle & Phoenix Division of Reeves Bros. Mr. Amos is treasurer of the Southeastern Section of the American Association of Textile Chemists & Colorists.

W. H. Burroughs has resigned as vice-president and secretary of Reeves Bros. Inc., New York City, to open his own management consultant business. Before opening his offices, however, Mr. Burroughs will enjoy an extended vacation in the South and later in Europe.

Joe Reid Daniel has been named superintendent of the new throwing plant of Textron Southern at Williamston, S. C., which is scheduled to begin operations soon. A native of Burnsville, N. C., Mr. Daniel has been with Textron since the first of the year.

Sam Walsh, formerly with Whitin Machine Works, Whitinsville, Mass., has joined Dixie Mercerizing Co. as textile machinery specialist at the company's Lupton City, Tenn., spinning plant.

Dan M. Culp, long associated with the Southern Shuttles Division of Steel Heddle Mfg. Co. at Greenville, S. C., is now located in new headquarters in Greensboro, N. C., and will handle the Steel Heddle Mfg. Co. line of loom harness equipment in addition to Southern Shuttle products.

W. A. Rhyne has resigned as superintendent of Hadley Peoples Mfg. Co., Siler City, N. C., to become assistant superintendent of Firestone Textiles, Gastonia, N. C.

It was noted in the February issue of this journal that W. L. Dallas had been promoted from overseer of weaving to superintendent of Waverly Mills and Scotland

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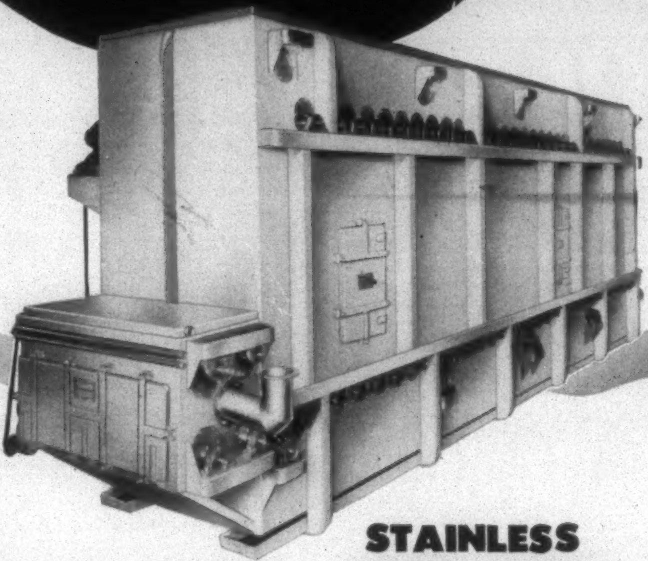

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Mills at Laurinburg, N. C. Mr. Dallas' correct title is superintendent, Waverly Plant, Waverly Mills. James B. Griffin has been for the past ten years and continues to be general superintendent of Waverly Mills, while R. L. Ormsby, superintendent of Scotland Mills for the past 12 years, continues in that position.

M. H. Seigler has been promoted to general manager of the Anderson, Belton and Newry, S. C., plants of Abney Mills. He formerly was assistant general manager. . . . Other personnel changes in Abney plants follow: Carl Seigler has been promoted and transferred from superintendent of the Newry plant to assistant general manager of the Anderson, Newry and Belton plants; H. B. Campbell has been transferred from the Woodruff, S. C., plant to Newry as superintendent; and L. T. Embler has been promoted from assistant superintendent to superintendent of the Anderson plant succeeding P. E. Strickland, retired.

Mrs. Clarence R. Miller, widow of the founder and chairman of Texas Textile Mills, McKinney, Tex., has been chosen to succeed her late husband as board chairman. . . . Russell Middleton was promoted to vice-president and administrative officer, a newly-created post. Mr. Middleton has been associated with the company for about 17 years, and previously was comptroller for the firm. All other officers have been reelected.

William J. Loeffler has retired from American Aniline Products Inc., of which he has been secretary, after serving the company for 30 years. He will continue in an advisory capacity to the export department, which he has headed since 1940.

William J. Cramer has been named assistant superintendent of the Celriver Plant of Celanese Corp. of America near Rock Hill, S. C. Mr. Cramer joined Celanese in 1935 as a laboratory supervisor and prior to his recent promotion was with the company's Cumberland, Md., plant.

John A. Brown Jr. has been named representative in Allis-Chalmers general machinery division's Knoxville, Tenn., district office. Mr. Brown, an electrical engineering graduate of Vanderbilt University, has been an application engineer in Allis-Chalmers substation section since 1950. He was program chairman for the Milwaukee Section of the American Institute of Electrical Engineers.

Arthur Woodbury, formerly assistant to the head of the staple development department, Celco research plant of the Celanese Corp. of America, has joined the staff of the department of textile research at the School of Textiles at N. C. State College, Raleigh.

Clarence E. Elsas, president of Fulton Bag & Cotton Mills, Atlanta, Ga., was elected national president of the Textile Bag Manufacturers Association at the quarterly meeting held recently in Houston, Tex.

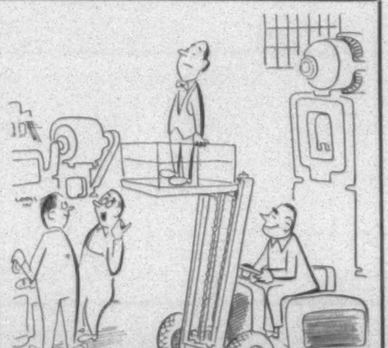
Hugh Y. Ballard, who for the past year has been assistant superintendent of National Yarn Mills, Belmont, N. C., has been promoted to superintendent succeeding Jonathan Rhyne. Mr. Ballard was for ten years superintendent of Park Yarn Mills of Kings Mountain, N. C., prior to joining National Yarn Mills.

Thomas J. Scanlon, formerly head of the Philadelphia sales dyestuff laboratory of Calco Chemical Division, American Cyanamid Co., has joined the sales staff of Dexter Chemical Corp., New York. Mr. Scanlon, secretary of the Philadelphia Section, American Association of Textile Chemists & Colorists, will handle the sale of textile chemicals for Dexter in the Philadelphia area, southern New Jersey and parts of Pennsylvania. Since his graduation from Lowell Textile Institute, Mr. Scanlon, in addition to his ten years with Calco, has had nine years with two American Woolen Co. plants, Wood Worsted and Ayer, plus one year with M. T. Stevens and Co., immediately after his graduation from Lowell. At Ayer Mills he was assistant chief chemist in charge of the dyehouse laboratory. Mr. Scanlon is the inventor of the two-fingered crock meter. He has been a senior member of the A.A.T.C.C. for eight years, served as a member of the Intersectional Contest Commitee for five years and was chairman of the publicity committee for two.

William F. Pettit, spinning room overseer at Darlington (S. C.) Mfg. Co., has retired from the textile field after 50 years of service.

Edgar H. Gordon has become associated with Fieldcrest Mills, Spray, N. C., as head piece dyer at the towel mill. Before joining Fieldcrest Mr. Gordon was with Cannon Mills Co., Kannapolis, N. C., as laboratory technician in the piece dyeing department.

Thomas Carroll Jr., the son of Thomas Carroll of Charlotte, N. C., assistant to the executive vice-president of the National Cotton Council, has been tapped by the Order of the Golden Fleece, highest honorary society for men at the University of North Carolina.



"He takes title of overseer literally, doesn't he?"

Draper Corp. announces the election of Warren D. Oliver to its board of directors. Mr. Oliver is a senior partner in the firm of Herrick, Smith, Donald, Farley, and Ketchum of Boston, Mass.

James Funderburk has resigned as superintendent of the No. 2 Plant of Cannon Mills Co. at Concord, N. C., a post he has held the past three years, to become superintendent of Hadley Peoples Mfg. Co. at Siler City, N. C. . . . Dewey L. Davis, formerly superintendent of Cannon's No. 10 Plant, has succeeded Mr. Funderburk at the No. 2 Plant, and Mr. Davis in turn has been succeeded at the No. 10 Plant by Harry Fesperman.

Edwin M. Holt is resigning March 31 as director of research and development for Erwin Mills Inc., Durham, N. C., to accept an executive position with Cone Mills Corp., Greensboro, N. C. Mr. Holt will serve as assistant to Clarence Cone, vice-president.

OBITUARIES

Joseph E. Boston, 48, of Charlotte, N. C., associated with American Moistening Co. since 1930, died March 1 at a hospital in Charlotte. Surviving are his wife, a son, a daughter and a brother.

Fred C. Butler, 58, general superintendent of Bemis (Tenn.) Cotton Mill, a subsidiary of Bemis Bros. Bag Co., died Feb. 28. Mr. Butler became associated with Bemis in 1918 and had been general superintendent since 1944.

Alfred L. Clubb, 70, retired textile plant superintendent of Gastonia, N. C., died Feb. 22. Surviving are his wife, four sons, two daughters, three sisters and a brother.

Frank T. Gibson, 51, secretary of Bladenboro (N. C.) Cotton Mills Inc., died March 2 of a heart attack. Mr. Gibson was a native of McColl, S. C., where interment was made. Survivors include his wife, two sisters and a brother.

Franklin C. Hodkinson, 80, retired general manager of American Circular Loom Co. Inc., New York, died Feb. 22 at his home in East Orange, N. J.

Harvey W. Mitchem, 67, retired textile plant overseer of Bessemer City, N. C., died Feb. 17. Surviving are his wife, three sons, a daughter and two sisters.

Hugo H. Riedl, 64, president of Neuss, Hesslein Co. Inc., died Feb. 12 at his home in Manchester, England, after a brief illness. Mr. Reidl became president of the firm in 1948 after serving as director of its British subsidiary since 1933. He had been associated with the firm since 1912, selling textiles in many of the world's markets.

Duncan D. Sutphen, 91, former president and board chairman of A. D. Juilliard & Co. Inc., died reecntly. Mr. Sutphen joined the company in 1883 following his graduation from Rutgers University, became president in 1928 and board chairman in 1939. His wife and a son survive.

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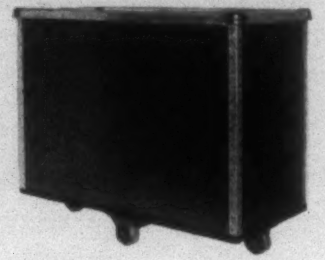
24 TRUCKS For The Textile Industry



Made of 1/4 inch Hamptonite Fibre with slatted, solid wood, or metal bottom and heavy duty galvanized or Stainless Steel top rails. This truck is securely riveted throughout with solid rivets and casters are *bolted* onto trucks. This No. 2300 has no center band to catch under ring rails

The Excel
No. 2300 Hamptonite Truck

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No. 400 Slatted Yarn Truck
No. 500 Metal Yarn Truck
No. 600 Slatted Conditioning Truck
No. 700 Waste Can Truck
No. 800 Platform Truck
No. 900 Metal Conditioning Truck
No. 1000 Fibre Truck
No. 1100 Steel Lap Truck
No. 1200 Utility Fibre Truck
No. 1300 Utility Metal Truck
No. 1400 Comber Lap Truck
No. 1500 Pin Board Truck
No. 1600 Bale Opening Truck
No. 1700 Cone Truck
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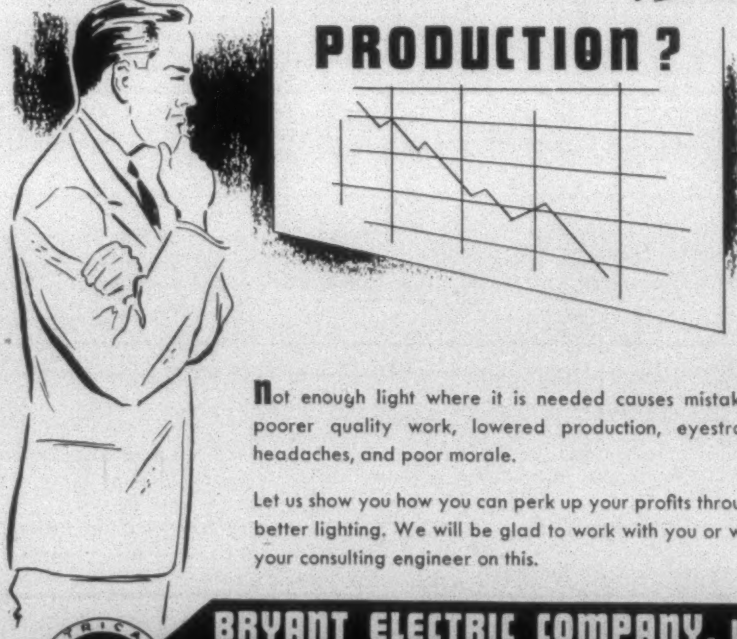

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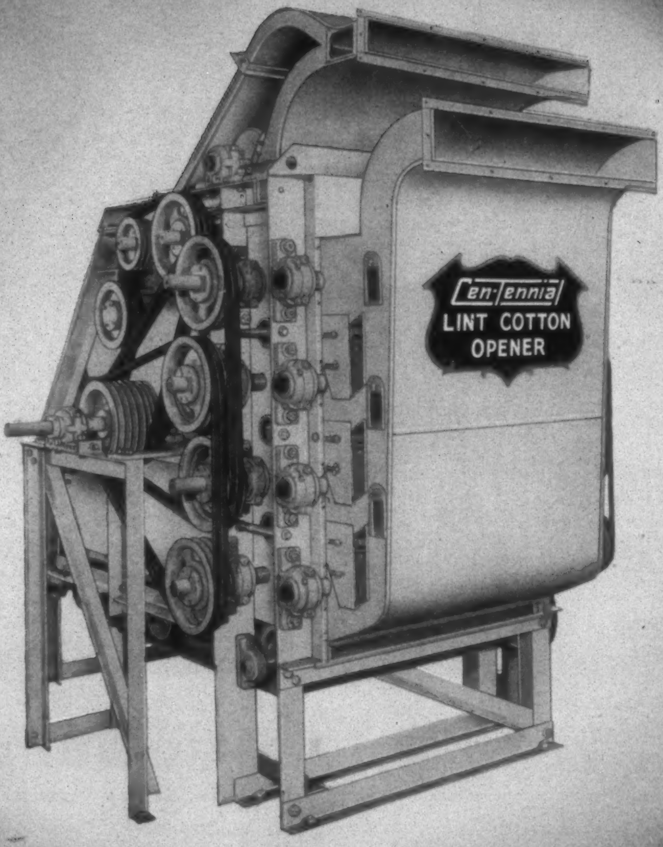

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COLUMBUS, GEORGIA

MILL NEWS

CONSTRUCTION, NEW EQUIPMENT, FINANCIAL REPORTS, CHARTERS, AWARDS, VILLAGE ACTIVITY, SALES AND PURCHASES

CLARKESVILLE, GA. — Clarkesville Mill recently announced plans for a 20 per cent expansion in its throwing department. Approximately 10,000 square feet of floor space will be added to the present plant to make room for the expansion of the department which twists synthetic yarns used in the weaving of synthetic fabrics. Officials state that from 15 to 20 additional employees probably will be added to the payroll following completion of the expansion work.

MARTINSBURG, W. VA. — A contract of sale for the sum of $325,000 between Dunn Woolen Co., Martinsburg, and Frank G. W. McKittrick Co., a Massachusetts corporation, for all machinery, equipment, attachments, supplies and parts, with several specific exceptions, owned by the Dunn Co., has been recorded at the office of the county clerk. Dunn Woolen Co., as previously noted, is retiring from the production field and has notified employees that they should look for other jobs. The company was organized in 1914 and at the peak of its operations employed about 500 persons.

NEW YORK, N. Y.—It is reported in trade circles that American Woolen Co., manufacturer of woolen and worsted fabrics, is negotiating for the purchase of Robbins Mills Inc., manufacturer of synthetic yarns and fabrics. The resulting company, should the merger be consumated, would be among the six largest textile companies in the nation. It is reported that American Woolen Co., whose properties are concentrated in New England, has been considering the possibility of shifting most of its operations to the South. Robbins' plants are located in Robbins, Red Springs, Aberdeen and Raeford, N. C., and Clarksville, Va. Both companies maintain their executive offices in New York City.

NEW YORK, N. Y. — An employment-stock option agreement between Consolidated Textile Co. Inc. and Lester Martin, its president, will be considered at a special stockholders' meeting April 6. Shareholders will also act on a stock purchase and option agreement entered into between Consolidated Textile and the Loom-Tex Corp., a New York corporation, all of whose capital stock is owned by Mr. Martin. Both resolutions have been adopted by directors last December and are subject to approval of shareholders. Explaining the Loom-Tex matter, the proxy notes that directors at the Dec. 22 meeting adopted a resolution authorizing Consolidated Textile to lease from Loom-Tex two cotton mills. These mills are located at Martinsville, Va., and Kings Mountain, N. C., and have been leased for a period of four years. The rental, it was stated, is measured solely by the number of pounds of goods produced and baled in the said mills while the lease is in effect. The mill at Kings Mountain has a total of 388 looms and approximately 18,000 spindles with a capacity of approximately 40,000 pounds of print cloth per week. The Martinsville mill has 500 looms and approximately 21,000 spindles. It has a capacity of approximately 45,000 pounds of print cloth per week. The Loom-Tex Corp., it was noted, recently installed approximately $50,000 of additional machinery and equipment in the Martinsville mill. Acquisition of these mills on the terms offered, the proxy states, gives Consolidated Textile greatly increased manufacturing capacity without tying up any of its capital in fixed assets.

CHARLOTTE, N. C. — An exchange of stocks by Chatham Mfg. Co., Elkin, N. C., and the majority stockholders of Leaksville Woolen Mills, Charlotte, has been announced jointly by Thurmond Chatham, board chairman of Chatham Mfg. Co., and John M. Morehead, board chairman of Leaksville. The basis of the exchange was not revealed. The announcement disclosed that operations will continue without change by the Leaksville plants at Charlotte and Spray, N. C., under the management of Mr. Morehead, president for many years.

MCCORMICK, S. C. — McCormick Spinning Mill Inc., a unit of Deering, Milliken & Co., observed open house March 13 with relatives and friends of employees invited to tour the installation. The plant employs about 600 persons with a total annual payroll of approximately $1,872,000. Two other plants in the McCormick group, those at Johnston and Pendleton, S. C., are scheduled to hold similar open house events soon.

LAGRANGE, GA. — Pepperell Mfg. Co. recently announced that it has completed plans for the purchase of more than 90 per cent of the total issued and outstanding capital stock of Dunson Mills. Dunson Mills was chartered in 1910 and began operations in 1911. Dunson utilizes approximately 40,058 spindles and 953 looms in the production of ducks, drills, twills and osnaburgs, employing about 1,200 persons.

UNION, S. C.—Monarch Mills, a unit of Deering, Milliken & Co., recently received a citation from the commanding general of the Third Army in recognition of Monarch's "faithful and co-operative spirit in the release of employees for performance of military duty" as members of the Army Reserve.

GREENVILLE, N. C. — Greenville Mills Inc., subsidiary of Artloom Carpet Co., has announced additions are being made to the local plant to increase its capacity and production by 30 per cent, according to Stanley F. Anderson, vice-president and general manager. New equipment has been pur-

"Can't you shut down enough of the machinery to cut out this interference at least until this program's over?"

chased by the company and the first shipment is expected to be received about May 1. "We expect to have all new equipment in production by the first of July," Mr. Anderson added. The new equipment will include two complete sets of cards, complete spinning frames and the addition of package dye units to the present dyehouse of the plant. The 30 per cent production increase of Greenville Mills Inc. will carry with it a corresponding increase in the number of employees.

Mooresville, N. C.—Mooresville Mills' modern new C-4 weave room, equipped with 200 of the latest 78-inch automatic looms, has been completed and machinery is now in place after an operation which began almost two years ago. The new looms, which can be converted to pick-and-pick, are capable of weaving finished goods up to 60-inches in width, either in apparel, decorative or utility fabrics.

Rock Hill, S. C.—The local plant of Samarkand Rug Co., inactive for the past several months, has been purchased by Rock Hill Printing & Finishing Co. for use as a warehouse.

Newton, N. C. — Carolina Mills Inc. recently announced plans for construction of a $15,000, one-story brick addition to the bleachery at its No. 4 Mill here. The plant produces infants' knit garments and novelty items and does finishing work for other plants in the area. Production capacity of the finishing plant will be increased from 49,000 pounds of cloth a week to 55,000 pounds when the addition is completed and put into operation, probably in May.

Greenville, S. C.—The offices of V. O. Roberson Jr., general manager of the fabric production division of United Merchants & Manufacturers, and those of his staff in the division will be moved to Greenville, S. C., in the near future. Mr. Roberson said the new offices would be located in Calhoun Towers, North Main Street, Greenville. Mr. Roberson's division covers the operation of mills in Clarkesville, Elberton and Augusta, Ga.; Clearwater, Bath, Union and Buffalo, S. C.; and Statesville and Old Fort, N. C. Moving to Greenville with Mr. Roberson will be E. Leland Jordan, special assistant, and Connor E. Stewart, director of public relations and personnel, and other staff members yet to be named. Mr. Roberson emphasized that the division's operations would not in any way be affected other than relocation.

Stanley, N. C. — A Gastonia, N. C., building contractor, R. H. Pinnix, has been awarded the contract for construction of a new plant here for Talon Inc. The general contract amounts to more than $300,000. Eventually, Talon will invest more than a million dollars in the Stanley plant. The plant will be used to supply the company's tape and cord requirements. About 185 people will be employed. The schedule calls for Mr. Pinnix to finish one section of the new building by June 1, and complete the building by Sept. 30. New machinery will be installed and the plant should be in operation by Dec. 1. A few trained machinists will be sent to Stanley from Talon's home plant in Meadville, Pa. They will recruit local labor and train them for their jobs. The building will be one-story high, built of steel, brick and concrete masonry. It will have 62,000 square feet of floor space.

Ware Shoals, S. C. — Riegel Textile Corp. plans the sale of a number of company-owned houses, beginning March 26. The company states that present occupants will be given first opportunity to buy their homes.

Durham, N. C.—Erwin Mills Inc. recently disclosed progress resulting from modernization programs at its plants in Durham, Erwin and Cooleemee, N. C. A total of 323 new X-2 looms have been erected in the weave room at the No. 3 Mill in Cooleemee, completing part of a $700,000 modernization program at that plant. New lighting also has been installed in the weave room at the No. 3 Mill, and five Saco-Lowell high-speed frames are being operated there on an experimental basis. At the No. 1 Mill in Durham percale production is increasing as more equipment is changed over. New roving frames have been ordered for the No. 1 Mill and are expected in early Summer. Dyeing equipment for producing colored sheetings will be installed at No. 1 as soon as necessary changes can be made in the bleachery to accommodate the new equipment. Eight new cards are to be installed in the No. 4 and No. 6 Mills in Durham. At Mill No. 5 in Erwin 361 of the new X-2 looms in the weave room are now on the floor and 325 of them are in operation. A new air-changing system for the No. 5 weave room also has been installed and is now in operation. To meet the growing need for office space at administrative headquarters in Durham, certain departments of the main office will be moved into Erwin Auditorium which is being remodeled to accommodate the office facilities.

Statesville, N. C.—An expansion program contemplating the expending of approximately $100,000 by Paola Cotton Mills Inc. was announced recently by L. N. Mills, general manager. Mr. Mills said that the firm has purchased additional card room machinery and equipment necessary to balance the mill's output of plied carded yarn. At present the concern's spinning facilities are greater than the carded yarn capacity and the expansion move is aimed at bringing over-all production into balance. The initial expansion will necessitate the addition of 4,000 square feet of floor space, which will be added to the north side of the present building. When the work is completed, three full eight-hour shifts can be maintained, Mr. Mills said. In the event of a third shift operation, 50 additional employees will be needed and present production will be increased by one-third. This and other contemplated improvements are part of a long-range expansion program.

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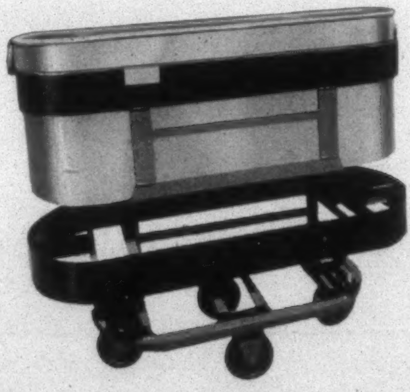

The spinner is not required to reach up to get bobbins with this creeler truck. The spinning room is also kept clean. The truck is easy to handle, light and can be made to fit your needs. The container has a place for full bobbins and empty bobbins. If needed, a compartment for waste can be made available. This creeler truck is all-steel welded and has the right guards in the right places . . . cannot damage any part of the spinning frames. Let us make you a sample to show you how to save on waste and, in turn, get better quality.

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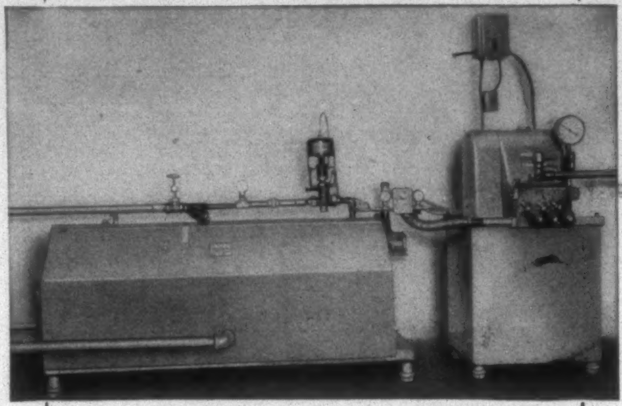

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The HYDROPULSE is flexible and can be installed to meet any mill's requirements. May we send you our bulletin containing complete information?

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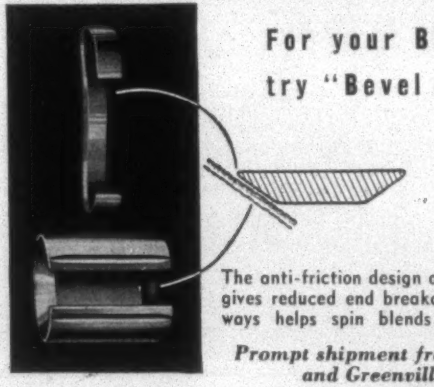

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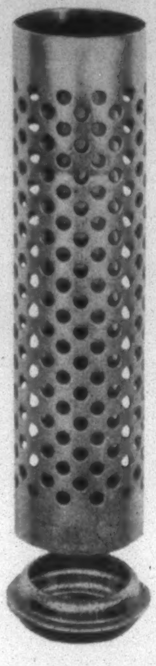

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for your package dyeing machines

MADE EXCLUSIVELY FROM
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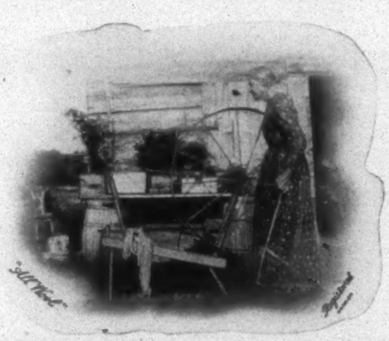

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Waterless Washstation

After several years of development and testing in representative industrial plants, Sugar Beet Products Co. announces the SBS waterless washstation. For the first time, this product makes it possible to substantially save worker off-the-job time, boost productive time in industrial plants by actually "bringing the washroom to the worker." This portable washstation dispenses the correct amount of SBS-30 waterless skin cleanser to the user . . . provides for paper towels to remove cleanser and grime . . . and also a receptacle to receive the waste towels—all in one unit.

Base of the waterless washstation is sturdily built of heavy gauge steel and encloses a removable canvas waste towel receiver. Its turret top holds two paper towel dispensers, and a newly-perfected dispenser for SBS-30 waterless skin cleanser that safely removes heavy industrial greases, oils, paints, grimes, and all manner of stubborn soils. The waterless washstation is finished in an attractive, durable green enamel with cleanser dispenser in handsome satin finished aluminum. It can be set up anywhere in the plant or relocated as changes in layout require. It needs no plumbing. It may be bolted down, if desired, but is not considered necessary. It is perfectly portable.

The development of a foolproof dispenser for SBS-30 is another first for this remarkable waterless washstation. A specially constructed container of SBS-30 is quickly secured to the dispenser base. A unique measuring stick unerringly checks amount of SBS-30 in the container. When empty, the old container is simply discarded and a new one put into the dispenser. By a simple adjustment, the mechanism dispenses either of two amounts to more exactly meet cleansing needs. One turn of the dispensing handle deposits on the user's hands the correct amount of SBS-30 for one wash. The shut off is positive, there is no dripping or leakage. Provision has been made for the easy attachment of whatever brand paper towel dispensers are used in your plant. There is a spacious storage space in the turret top for additional cleanser and paper towels. The canvas waste towel receiver in the base is easily and quickly removed through a large, hinged door. Sturdy legs keep the unit off the floor for cleaning accessibility.

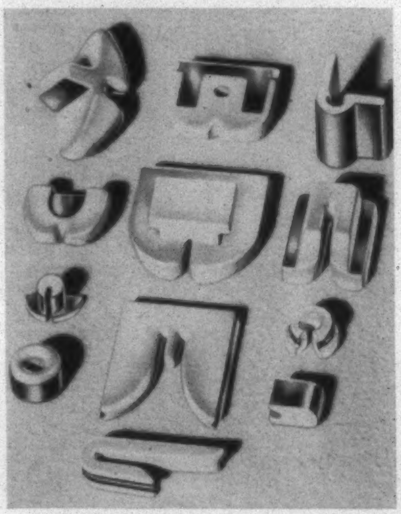
In addition to the saving in plumbing cost, a saving in money and space results by eliminating washroom facilities which may otherwise be required. SBS-30 waterless washstation can be set up along production lines; near special operations where grease, paints, varnish, or other hard-to-remove soils may be encountered; in warehouses and other points without adequate washing facilities; in outdoor areas where soap and water are never available; and in office washrooms when difficult to remove soils are a problem.

Surveys show that under normal plant conditions these new waterless washstations will pay for themselves in approximately one month in worker production time saved. An annual saving of $500 to $600 per SBS waterless washstation can be expected. These units improve worker morale, increase worker efficiency, and help minimize losses due to dermatitis through the promotion of general cleanliness, it is claimed. (C-1)

Indicating Viscometer

The Norcross Corp. has supplemented its recording viscometer line with a new indicating instrument for applications where a permanent record is not required, and the price for recording equipment cannot be justified. The new model is designed for either panel or wall mounting, and is furnished with a six-inch dial. It can be supplied as an indicator-controller for some automatic control applications. This indicator is used with the company's basic measuring elements which operate on the principle of measuring the time required for a piston to fall a given distance through the solution being measured. The indicator can be remotely located any reasonable distance from the measuring element. Ask Norcross Corp. for complete information on this new model. (C-2)

Metallized Thread Guides



AlSiMag thread guides with specific areas metallized for attachment by soldering are announced by American Lava Corp. This opens an entirely new field of thread guide application. Primarily it permits the firm attachment of small ceramic inserts in places where a smaller guide can increase production speed.

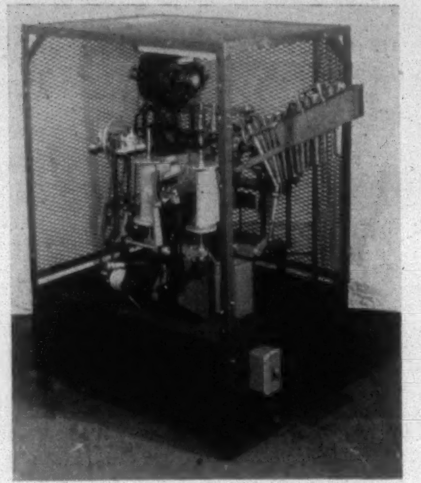
The firm attachment of guides is highly desirable in many applications. AlSiMag guides have such extremely long life that many mills wish to solder the guides in place so as to preclude any possibility of their coming off or of altering their exact position, the firm claims. Prior to the introduction of super-long-wearing AlSiMag guides, most mills considered that the expense and down time of frequent guide replacement was a necessary part of their costs.

The permanence of the AlSiMag guides created a desire to attach them permanently to the equipment. The metallized areas which permit attachment by solder is a completely new answer. The characteristics of the ceramic are not altered in any way. Selected areas can be metallized and the metal fired into the ceramic to become an integral portion of that section of the ceramic. That metallized area of the ceramic is then built up by the manufacturer to any desired thickness by electroplating.

Some AlSiMag guides are made of an

electrically conductive ceramic to aid in the control of static. Soldering these electrically conductive guides into position on a grounded metal seems to improve their performance in the bleeding off of static electricity. Details of the application of metallized areas on specific guide problems may be secured from American Lava. (C-3)

Glenwood Machine Improved



Glenwood Machinery Associates Inc. announce that with the moving of its manufacturing facilities, it has developed several refinements on its machine for refinishing and degreasing loom quills. The new machine is known as Model C which incorporates the following improvements over previous models.

A conveyor discharge has been added so that the quills may be fed directly to a basket or truck or to another conveyor that will take the quills directly to the automatic quillers. Quick changes have been incorporated to accommodate different length quills. This will allow greater diversification in the use of the machine as mills can now change from a 7⅜-inch quill to a nine-inch quill in a matter of minutes.

Also a much wider range of abrasives has been developed whereby many degrees of finishes can be obtained. The degreasing materials have also been developed with a much wider range. Beside removing grease and dirt these materials give a polishing action of a much finer degree than can be obtained by the use of abrasives and this material is said to last indefinitely.

Further, this machine has now been developed so that it may be fed, as in the past from the rails of the Terrell stripper machine, or from the return conveyor of the Terrell. The latter arrangement has proven much more satisfactory. This machine will also reject quills that are severely damaged on the tips where most of the quill troubles start. Mills report that this machine pays for itself in labor saving alone in a matter of weeks. (C-4)

Nylon Whitening Agent

A new optical whitening agent designed for use with nylon, wool and other fine fabrics has been introduced by the Hilton-Davis Chemical Co. Division, Sterling Drug Inc., it was announced by Nelson S. Knaggs, vice-president in charge of sales.

Known as Hiltamine Arctic White NT for the textile industry, the optical bleach is the latest addition to the company's line of whitening agents for soaps, detergents and commercial laundering. When applied to the fabric, its chemical structure permits it to absorb invisible ultraviolet light, the "energy from which is converted to visible light in the blue range of the spectrum, thus adding new light to the total surface reflection," Hilton-Davis explains.

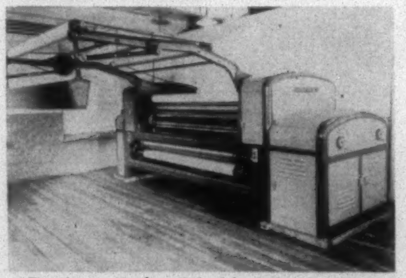
Hiltamine Arctic White NT has the ability to be retained on fabric in minute amounts. Being a direct-type dyestuff, it is pointed out, it readily exhausts from very dilute solutions. On application to white fabrics its fluorescent qualities cause a marked increase in the apparent whiteness of such fabrics. When used with colored materials, especially pastels, the brilliance of the shade is enhanced.

The new optical bleach, Hilton-Davis emphasizes, can be applied from an alkaline detergent or soap to the fabrics to be whitened, without causing yellowish discolorations. Previously, it is noted, optical bleach was employed from a neutral or acid bath. The whitener is available in standard packings of 100-pound fiber drums from Hilton-Davis or through the firm's sales distributors: Blackman-Uhler Co. Inc., Hilton-Davis Sales Co. and Canadye Corp. (C-5)

General Dyestuff Circulars

General Dyestuff Corporation announces the release of the following new circulars, available on request: G-736, Algosol Olive IT; G-741, Algosol Brilliant Orange IRKL Supra; Algosol Brilliant Orange IRKL Paste for Dyeing; G-744, Monochrome Olive FBBL Conc CF; G-742, Rapidogen Black 3 G; G-724, Rapidogen Corinth IB-CF. (C-6)

Simplex Napper



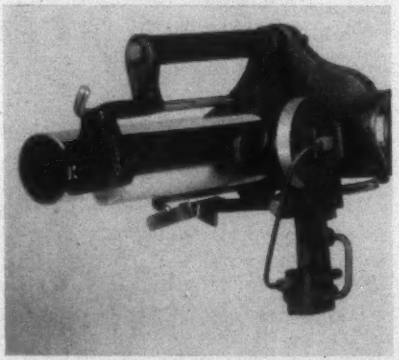
Davis & Furber Machine Co. announces an addition to its Simplex line of modern textile machinery. This brand new re-designed napping machine is of the 24-roll, double-acting type for use in woolen fabric mills, as well as on wool, and part wool and cotton or synthetic fiber blankets, the company states.

Completely modern in its design with totally enclosed drive and gears, particular attention has been paid to simplification of operation. Because of the addition of sensitive dial controls and elimination of change gears, a predetermined finish can be automatic. The guesswork is taken out of subsequent runs on the same fabric construction so that the amount of energy applied will be the same on previous runs. Therefore, a duplication of the desired nap will be possible without any trial and error period which usually results in many seconds, spoilage of goods, and costly time spent in refinishing.

Called the Simplex napper, the new machine will finish a wider variety of fabric constructions than ever before. This versatility is combined with other advanced engineering, such as anti-friction bearings and easy changes of cloth speed while in operation. Strict attention has been paid to features leading to maximum safety for the operator, and cleaning and lubrication downtimes are lowered so that they have become negligible factors. Available in 80, 90 or 100-inch widths, the new Simplex napper also incorporates other features which greatly simplify the changing from a double-acting to a single-acting napper with a minimum of extra material.

Descriptive literature showing construction specifications and operating procedures will be made available on request. Please specify Simplex Model L-3 Napper, or Davis & Furber Bulletin N-60B. (C-7)

Superair Cloth Guider



Shown above is the Hetherington new Superair cloth guider equipped with the new super air valve, designed to reduce the time interval that the guider rolls are allowed to open. This, according to the manufacturer, makes for more accurate guiding.

This shorter time interval which reduces the oscillation or side to side movement of the cloth is made possible by placing the valve at the end of a four-inch angle stem instead of close to the bearing as done usually.

Another feature of the new valve, the makers claim, is air economy. The valve, they say, is practically air tight and operates on an Oilite bearing two inches long. In addition to using the new valve on its own new Superair guiders the manufacturer has arranged to supply it for use on guiders already in operation. Further details concerning this item will be furnished on request by Guider Roll & Service Co. (C-8)

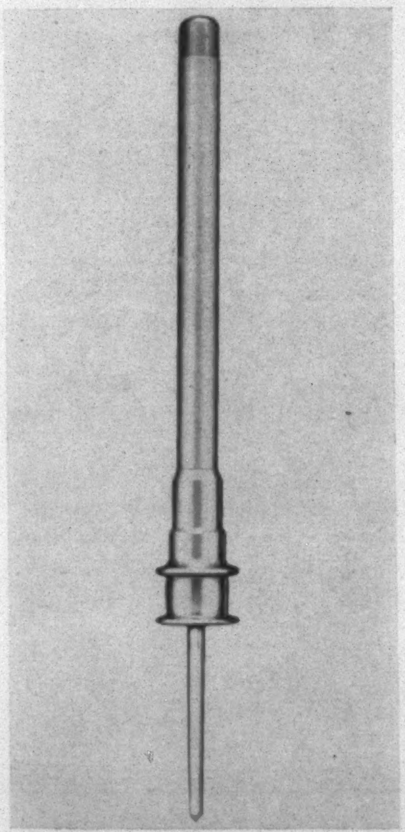
Norcross Bulletin

The Norcross Corp. recently made available to the industry its new Bulletin V1000E covering its complete line of viscometers for industrial viscosity control. This new literature describes the firm's indicating, recording and controlling equipment and illustrates models that are available for various operating pressures and for applications requiring explosion-proof design. General technical information is included, together with many proposed uses in diversified industries. Copies of the Norcross bulletin are available on request. (C-9)

Houghton Bulletins

E. F. Houghton & Co. announces literature is now available for a list of supplies, chemicals and engineering and maintenance items. The literature describes its line of Cerfak synthetic detergents and Surfax wetting and re-wetting agents; Houghto-Size 475, easy to prepare powdered sizing agent; Sulfol 448, non-ionic, easily scoured lubricant for staples and filament; Resonet synthetic resin finishes; anionic textile softener for cottons and spun rayon; lubricants for textile machinery, fortified spindle oils, Houghton's engineered lubrication plant and its special leather belting. (C-10)

Hartford Spindle Adaptor



The benefits of unique, two-stage conversion are offered by the new Hartford spindle adaptor for paper or plastic tubes. For the first stage this adaptor enables a mill to use existing spindle blades. Onto these are mounted the Hartford adaptor, consisting of a new chrome-plated steel whorl, which gives unusual protection at the major wear point, and an aluminum barrel surmounted by a cap, or seat, of steel to retard wear at that point. With the Hartford spindle adaptor a mill can convert spinning, twisting or special duty spindles from wood-bobbin service to service with all types of paper or plastic tubes, regardless of the make of spindle now in use.

Because of the Hartford adaptor's design,

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(March 1953)

Reader Service
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P. O. Box 1225
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Please send me further information and/or free literature described in the following item(s) carried in the "For The Textile Industry's Use" section (list key numbers that appear at end of each item): ____________________

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plus its long-life construction, it is possible for a mill to make a second conversion at a later date. This feature prevents obsolescence. When the time comes that a mill wishes to improve its spindles further, the adaptors are returned to the Hartford Machine Screw Co., which removes the old blades and attaches either their ball bearing or roller bearing anti-friction running gear. This second adaptation is very simple, because the whorl is so designed that it also fits the Hartford anti-friction running gear. Further engineering information on this new adaptor may be secured from the Hartford Machine Screw Co. (C-11)

Insulcolor

A new plastic coating for use as both protection and color identification on insulated refrigerant, cold water, steam and other lines and insulated equipment has been developed by the Armstrong Cork Co. The new finish, called Insulcolor, is a tough plastic coating that can be either brushed or sprayed on. The firm states that Insulcolor will withstand temperatures to 160° F. without cracking, shrinking, or crazing. It may be used over heat insulations, cork pipe covering and lagging, and also as a finish over cork-insulated air conditioning ducts.

Insulcolor is available in white and six colors—light and dark green, light and dark blue, yellow and buff. For jobs where color is not desired or required for line identification, white provides an attractive, sanitary surface. Insulcolor can be applied over standard asphaltic finishes without danger of bleed-through. The tough finish furnishes high resistance to bumping and abrasion. It has high water resisting properties which make it suitable for either inside or outside applications. No inflammable solvents are used in Insulcolor so that it's safe to use on the job. When dry, it is classified as fire-retardant. It is also entirely odorless.

Insulcolor reduces maintenance on insulated lines to a minimum. Dust, dirt, grease, oil and soot can be readily washed off its smooth surface. On indoor and outdoor lines and equipment it lasts for many years without recoating. It can also be used as an adhesive for pasting down canvas, asbestos, and other lagging cloths, thus eliminating the need for sewing the material. When used as an adhesive for lagging, Insulcolor is diluted with water.

Base white Insulcolor and the color tint desired are shipped in separate containers and mixed on the job. The white base is supplied in 3½ gallon pails, containing three gallons of the material, which allows space for mixing. Coverage is 35 to 50 square feet per gallon in two-coat application, depending on the surface being finished. (C-12)

Automatic Couplers

Towmotor Corp. has added three types of automatic couplers to optional original equipment available on Towmotor lift trucks and tractors. Installed as replacements for standard towing eyes, these couplers speed the pick-up and release of trailers used with Towmotor units. Each type is built with an open jaw which automatically makes the connection when entered by the trailer coupler. One type provides a hand-operated release lever, another employs a foot lever, while the third permits operation of the release mechanism either manually or by foot pressure. Two of the couplers are spring-actuated and the other utilizes a ball-type lock. (C-13)

Reeves Range Drive

Reeves Pulley Co. announces the availability of the new Reeves A-C range drive, said to be the only alternating current range drive on the market today. This new range drive gives accurate, immediate, infinitely variable speed control plus automatic inner-drive synchronization of all ranges without the problem of converting current. No generators are needed with the Reeves A-C range drive. This new range drive is a constant-torque drive and does not need oversize capacity for reduced speeds.

The Reeves range drive is a mechanical drive and, consequently, gives two decided advantages: any number of follower drive units may be added to the original Reeves installation without adding generators or conversion equipment, and repairs and maintenance consequently are less complicated. The operating or material speed is set through the lead drive, with the whole system controlled from one control panel. Each follower drive may be adjusted at any time by its own individual manual controls. Once the range is operated, automatic controls take over. As speed variations occur because of stretch, shrink or load changes between units, the Reeves units automatically compensate for the changes and bring all units back into synchronization.

For additional information, contact the application engineering department of Reeves Pulley Co. (C-14)

Eriez Brochure

A new four-page, two-color brochure on low-cost permanent non-electric Model C plate magnets, applicable to all but the heaviest tramp iron removal problems, has been issued by the Eriez Mfg. Co. Typical installations of these separators, widely used in processing lines, are illustrated with engineering drawings and photographs.

The permanent separators are not affected by water or temperatures up to 650° F. They are capable of trapping and holding tramp iron in material flows up to two inches in depth. These high-strength Alnico V magnets are expressly designated for installations in wood spouts, chutes, hoppers, feed tables and for suspended application above slow-moving conveyor lines. The magnets incorporate stainless steel cap plates which insulate the pole plates and assure added protection against abrasion. These Alnico V units are built in a range of sizes from four inches to 24 inches in width. They can be made, however, for any width installation. The Model C magnets are recommended and approved by leading fire

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The new brochure (No. B-603) is available free on request to the Eriez Mfg. Co. (C-15)

Plant Recreation Booklet

Industrial relations and personnel executixes will be interested in a 40-page booklet "Plant-Centered Recreation For Defense Workers — Organization and Administration" just released by the National Recreation Association. Greater worker efficiency and productiveness on the job are emphasized as by-products of this part of a human relations program. Although the booklet is aimed at defense industry, its contents are equally valuable for the non-defense plant as well.

Characteristics of plant-centered recreation activities, how a program is started, types of organization for employee recreation programs, leadership, financing and examples of constitutions for plant-centered groups are included in the booklet. The difference in organization of recreation in large and small plants is fully explained.

The booklet points out: "Although a plant-centered recreation program cannot and should not attempt to take the place of the community recreation program, there is a real need for an employee recreation program in many plants to supplement the activities of the community recreation agencies." This publication is a special defense project prepared by the National Rercreation Association as a participating member of the United Defense Services, financed through the United Defense Fund. Single copies of the booklet may be secured from the National Recreation Association, 315 Fouth Avenue, New York 10, N. Y., without charge. (C-16)

Franklin Process Booklet

An attractive 16-page booklet outlining the history and services offered by Franklin Process Co. has been made available to the industry. Franklin Process plants in Providence, R. I., Philadelphia, Pa., Greenville, S. C., and Chattanooga, Tenn., are pictured and other illustrations point up activities in various departments of the plants. The booklet also contains a table showing relative fastness of dyestuffs used on cotton, wool and spun rayon. Copies of the Franklin Process booklet may be obtained on request. (C-17)

Safety Council Data Sheet

"Unit First Aid Kits," a new National Safety Council data sheet, provides a useful guide to better first aid for companies with scattered operations. Crews on mobile equipment or groups working in isolated areas benefit from these unit kits with treatment and dressings packaged for one-time use. With no half-empty bottles and half-used rolls of gauze, the kits remain sanitary during periods of infrequent use. The kits come in four sizes. As a rule, one 24-unit kit should be used for each 50 employees. Ten and 16-unit kits are satisfactory for small groups.

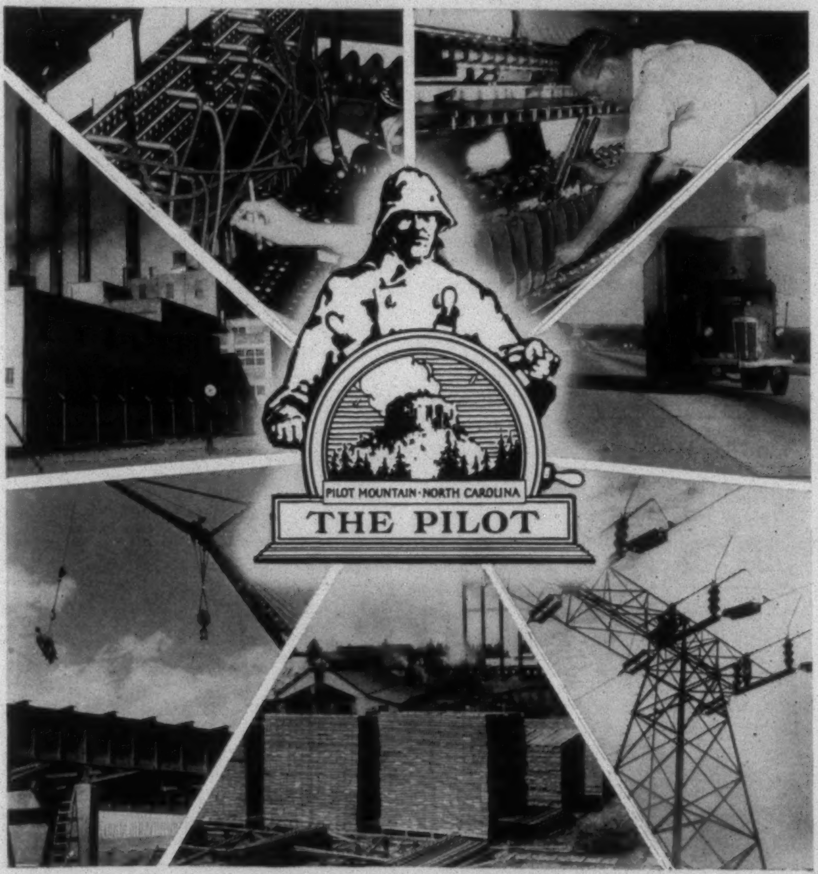
To assist companies in the selection of units for the first aid kits, the council's data sheet includes a chart giving recommendations for some 25 occupations. The assortments of treatment and dressings are based on surveys, trade association recommendations, state regulations or National Safety Council recommendations as to what items are most generally used in a given industry.

The data sheet contains a simplified accident and first aid report form as well as valuable information on first aid training and inspection and control. Copies of "Unit First Aid Kits," data sheet D-202, are priced at 17 cents each. Quantity prices are proportionately less. For additional information write the National Safety Council, 425 N. Michigan Ave., Chicago 11, Ill.

Funny scenes and comic mice, or serious thoughts and sound advice—you can take your choice from the National Safety Council's new "1953 Directory of Occupational Safety Posters" containing 756 miniature illustrations of colorful visual salesmen of safety. Both the serious and humorous approaches are used to provide change of pace and to enable the industrial safety director to select the soundest psychological approach to his problems.

In selecting poster subjects, the council consults the latest occupational accident statistics so that proper emphasis can be placed on the weakest spots. There are many posters for specific industries, such as chemical, mining, petroleum, textile, etc. There is a wide selection of general themes applicable to virtually all industrial fields.

The 72-page directory contains advice to safety men on how to choose and use posters



The Pilot works with management — building business by protecting workers!

From the telephone switchboard to the textile mill the protective arms of The Pilot cover all phases of Southern industry. Individually tailored group insurance programs stimulate profits and production by improving employee relations, reducing labor turnover, and attracting competent help.

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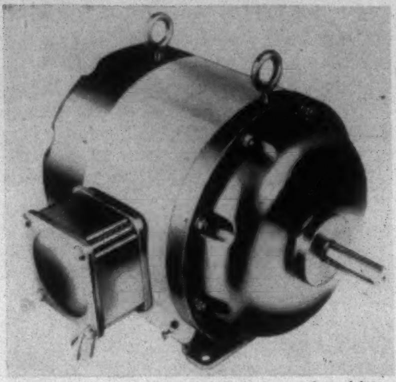
effectively, and a detailed index makes it easy to locate all posters on a particular subject. For a free sample copy of the directory and a price schedule of posters, write the National Safety Council. (C-18)

Chemical Plant Motors



The industrial motor division of Robbins & Myers Inc. announces that it is starting production of a new line of chemical plant motors in ratings from one to 40 horsepower, in N.E.M.A. frames up to 405. The new motors will be available in totally-enclosed and Underwriters' Approved explosion-proof construction. Special Class A chemical insulation treatments permit the use of the new motors in applications involving acids, alkalis, dyeing and bleaching, packing and peroxide, the company claims.

A wide variety of construction modifications is available, including a choice of cast bronze, cast aluminum, or cast iron ventilating fans. Cast bronze, cast iron, stainless steel, or flattened expanded metal ventilating grilles may also be specified. Automatic drain-and-breather plugs, as well as stainless steel shafts, can be supplied if desired at slight extra cost. All frames are constructed with stainless steel outer shells.

In addition to the special treatment these motors receive to make them suitable for chemical applications, added attention is given to protect metal parts against the ravages of corrosion. Steel parts are dipped in a special corrosion-resisting coating developed by Robbins & Myers; these parts are then baked and painted. The die-cast rotor is sprayed with a special corrosion inhibitor. The cast iron end heads and terminal box are cleaned and treated with a combination zinc chromate and iron oxide primer often specified by the government for use in detrimental environments.

The terminal box on totally-enclosed models is gasketed and power leads are sealed at the shells with a non-hardening compound. Repellent grease at the shaft extension hub keeps moisture away from the bearings. These bearings, pre-lubricated and sealed on both sides, are double-row width. Sealed-in, laboratory-tested grease permits maintenance-free operation for five years or more.

Robbins & Myers also manufactures standard totally-enclosed and explosion-proof motors in ratings from one to 40 horsepower. (C-19)

I.B.M. Booklet

The advantage of mechanized re-order and stock control for manufacturers of consumer goods who distribute their merchandise through independent retailers are described in a new booklet published by International Business Machines Corp.

This speedy and simplified method is equally advantageous to the manufacturer and the retailer. The retailer makes a greater profit through a higher turnover on a smaller inventory.

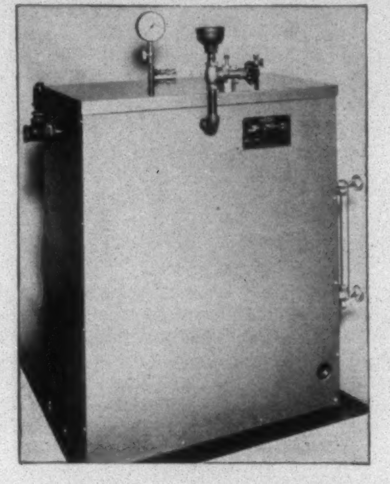
The procedure is described in detail and cards and forms are illustrated in the booklet, "Automatic Reorder System," which can be obtained on request. (C-20)

Penetex S

Hart Products Corp. announces Penetex S, a new addition to its extensive line of wetting agents. The product is a water-white clear liquid which is claimed to possess outstanding wetting-out action at a low cost. Using the Draves test with a three grm. hook at 40° C., the following sinking times are reported with this product: 0.1 per cent concentration, ten seconds; 0.08 per cent, 15 seconds; 0.064 per cent, 25 seconds; 0.05 per cent, 60 seconds.

Penetex S is reported to be a readily soluble sulfonated condensation product useful in neutral solutions, solutions of alkaline builders, salts, soaps, organic acids and in dilute sulfuric acid. A few examples of the application of this penetrant are: (1) As a dispersing agent to dissolve the dyestuffs giving complete solubility and full color value. (2) For wetting-out in the desizing or rayon, cotton and acetate goods. (3) For wetting-out cotton gray goods prior to bleaching and kier boiling. (4) Added to the dye bath on all types of machines and all kinds of colors where increased penetration and uniformity of shade are difficult to accomplish. (5) In dyeing operations in general to obtain increased penetration and greater uniformity of shade. (C-21)

Speedylectric Series ABC



A line of electrically-operated steam generators utilizing a completely new conception of electric boiler design is announced by Livingstone Engineering Co. Identified as Speedylectric Series ABC, they embody the results of intensive engineering research directed primarily toward the development of more compact units for installation in plants where the floor space is limited. The Electrode steam generator, unlike those utilizing resistance heating elements can be designed to operate on various voltages at constant amperage, so that the kilowatt rating, heating capacity and steam output vary in direct proportion to the voltage.

Utilizing this principle, these new Speedylectric boilers are designed for 220, 440 or 550 volts but they offer important advan-

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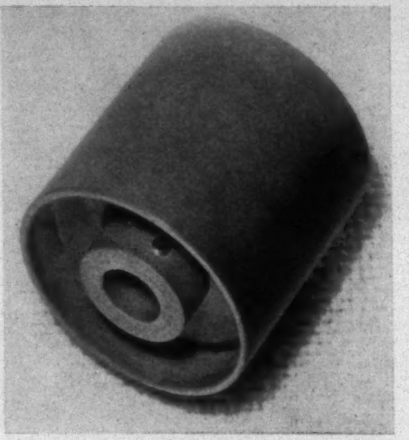
tages to those purchasers who have or can make available 440 or 550-volt power supply. Speedylectric Series ABC steam generators operating on 440 require less than one-half square foot of floor space per boiler horsepower, approximately one-third to one-half of the floor space required for conventional fuel-fired boilers in a comparable capacity range. These reductions in physical size and weight are also reflected in reduced manufacturing costs. According to the company's announcement, Speedylectric ABC boilers, for operation on 440 or 550 power, are priced substantially below other boilers, fuel-fired or electric of comparable pressure, capacity and A.S.M.E. code construction.

Added to these space, weight and cost advantages, the manufacturer points out that Speedylectric ABC boilers operate at 98 per cent efficiency with unity power factor; that they are entirely free from low water danger and fire hazards; that there are no tubes to scale or burn out, no feed water treatment required, no daily blowdown; and that maintenance costs are negligible. (C-22)

Chemical Made Available

American Cyanamid Co. announced recently the availability of acrylic acid in trial-lot quantities. A useful intermediate for the preparation of fibers, plastics, warp sizes, adhesives and finishing agents for paper, leather and textiles, this monomeric material is offered as a 50 per cent solution in water. It is stabilized by the addition of small amounts of hydroquinone. A technical bulletin containing a complete review of literature on the product and heretofore unpublished laboratory data is available upon request. During the past year Cyanamid has offered various derivatives of acrylic acid, including acrylamide, N,n'-methylene-bisacrylamide and n-tert-alkylacrylamides. (C-23)

Plastic Emulsion Rolls



The widespread use of increasingly acidic nylon sizing solutions has developed a new application for thermosetting laminated plastics. When new and stronger sizes such as Orthocryl were first introduced, it was found that the increased acidity produced a corrosive action on the aluminum emulsion rolls which resulted in discoloration of the nylon yarn.

As a consequence, several manufacturers of sizing machines took their problem to Synthane Corp., manufacturer and fabricator of laminated plastics. Synthane had previously developed a piping and fittings capable of handling nylon size from storage tanks to the machines, as well as a number of other items for the textile industry including bobbins, pirns, dyesticks and rollers.

While practically all laminated plastics possess very good moisture and chemical resistance, Synthane finally solved the problem through their grade XX, a paper-base material which machines to an extremely smooth surface. Outer shells three inches long were fabricated from three-inch OD XX grade tubing. This became the contact surface of the roller over which the delicate nylon thread passes and which must constantly revolve in a shallow bath of the strong sizing solution. The three-quarter-inch ID hubs, press-fitted and cemented with a non-corrosive adhesive were fabricated from Grade C, a fabric-base material possessing high mechanical strength. Stainless steel set screws lock the assembled rolls to the steel shafts.

After many months of operation under the most severe conditions, laminated plastic

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Our unusually strong financial position and long experience in the South are an unbeatable combination. For that strength and experience flows to you when you are Factored by Crompton.

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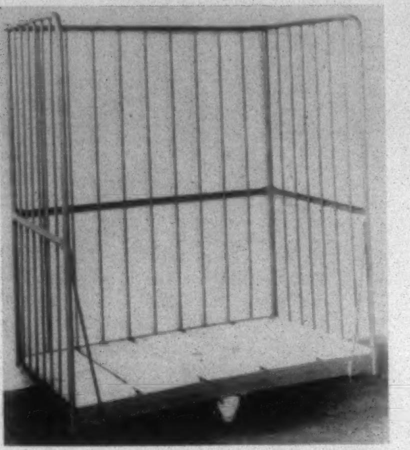
CROMPTON-RICHMOND CO., INC.
1071 Avenue of the Americas, New York 18, N. Y.

emulsion rolls have demonstrated their ability to withstand corrosive sizes and prevent costly staining of yarn, the company states. (C-24)

New Package Truck



A new package truck, designed for inter-plant and inter-departmental handling of packages, has been introduced by Leebaw Mfg. Co. The truck has an open front wall for ease in loading and unloading. Removable wood floor slopes downward towards the back to eliminate spillage. All-welded steel construction is designed for maximum strength.

Standard models are equipped with a four-inch swivel caster on each end and two five-inch rigid casters in the center—or four four-inch swivel casters on each of the corners. Among those models manufactured as standard: inside dimensions range from 27 by 53 inches to 36 by 60 inches; outside dimensions range from 29 by 54 inches to 38 by 61 inches; height above casters on all models, 60 inches; shipping weight ranges from 185 to 240 pounds.

Specialized models are also available according to individual specifications. All models may be ordered with an intermediate shelf, and may be finished with two heavy coats of gray enamel. Additional information may be had by writing the Leebaw Mfg. Co. (C-25)

Technical Information Sheet

A new technical information sheet issued by the Foxboro Co. covers operation of Model 40 elapsed time controllers, which automatically control the measured variable (temperature, pressure, etc.) at the desired value for a pre-set period of time. This type of control has wide application in the textile industry where process time is a vital factor.

Designed for batch or repetitive processes, the instrument is described in its two major forms: controlling total "rise" and "hold" time, and controlling "hold" time only. The desired time setting, accurate to better than plus or minus one-half per cent, is made from the front of the case on a 340° scale. Ranges are from 0-15 minutes up to 0-12 hours. When the timed period expires, the process shuts down, a green "hold" light is extinguished and a red signal light indicates end-of-cycle. Diagrams illustrate the standard operating cycles for each form of elapsed time control.

The various types of control action obtainable with pneumatic or Rotax electric mechanisms are listed under general instrument specifications, in addition to suggested measuring systems, time schedules and timer features. Separate sections explain the operation of a combined schedule timer and time cam, batch stabilog control to avoid overshoot on start-up, and auxiliary timing equipment. Control and timing units are identified in an internal view of an elapsed time controller, showing the timer scale, setting index, Rotax electric contacts and timing motor relay. Copies of the new sheet, TI 33-A-68a, will be sent on request. (C-26)

Elwell-Parker Manual

A comprehensive 12-page manual, illustrating and describing its entire line of platform and fork trucks and floor cranes is now available from the Elwell-Parker Electric Co., represented by Engineering Sales Co. of Charlotte, N. C. This profusely illustrated literature details the various components which make up the various trucks. One section is entitled "Check These Construction Features" and describes the Elwell-Parker motor, the "Rolotac" controller, and includes data on design.

Within the section on low lift trucks, pictures and data detail such features as the drive axle, trail axle, frame, controls, steering and the lift jack. General operating photographs and complete specifications complete this part of the manual. Individual subjects covered under the section on high lift trucks are the drive unit, trail axle, frame, controls, steering and the hoist unit. Specifications and operating photos are again included. Similar information and photos are given for both fork trucks and floor cranes.

In addition to the breakdown of the various units manufactured by the company, one page is devoted to action shots of a dozen attachments designed to increase the versatility of this equipment. Shown is the die handler, pallet retriever, upender, cable reel handler, side dump revolving unit, roll handler with apron, tin plate clamp, bale clamp, twin coil handler, roll clamp, roll piercing truck, and three-ton low lift, one-ton crane. (C-27)

Westinghouse Booklet

Electrical equipment for woolen and worsted mills is the subject of a new 40-page booklet available from the Westinghouse Electric Corp. Starting with the opening and picking rooms and going through the mill to the finishing department, this booklet discusses the types of equipment available, their applications, and the special design characteristics of each. Among the standard apparatus so appraised are motors, controls, and gearmotors. Also discussed are the design and application of special drives for spinning, warping, slashing, and other major operations. A ready-reference "drive application" chart provides the specifics of application for all 18 cases discussed. Among other subjects covered are lighting, power systems, maintenance service, and air conditioning. For a copy of this booklet, B-4798, write Westinghouse Electric Corp., or this publication. (C-28)

New Motor Starter

Arrow-Hart & Hegeman Electric Co. announces the availability of a folder for engineers describing its new Type RA-V magnetic motor starters with vertical overloads below contactor. The new starters are manufactured for use especially in the new Crouse-Hinds M52 Type EPC explosion-proof condulets. They are available in (N.E.M.A.) sizes "O" through "5." EPC is considered the preferred explosion-proof housing in the chemical and other related industries where the combination of explosive atmosphere plus adverse climatic conditions is critical.

Its designers claim the revolutionary Arrow-Hart "right-angle" mechanism of Type RA-V combines small size and light weight with added dependability. This combination provides savings in four important ways: smaller, lower-cost condulets; faster, easier installations even in the larger sizes, because installation can be made by one man; reduced size and cost of mounting racks, a particular advantage in the space savings possible with multiple units; lower building costs and space requirements.

The eight-page folder describes completely the uses of the new motor starter. It is fully illustrated and is said to include design features, size and weight data and other information of interest to the engineer. Available by writing the manufacturer: Arrow-Hart & Hegeman Electric Co. (C-29)

Booklet On Sorbitol

Application data and chemical characteristics on Sorbitol—as used by the textile and other process industries—are described in a new 24-page, digest-size booklet entitled "The Sorbitol Story" issued by Atlas Powder Co. Tables, charts and text define the composition and properties of various sorbitol products. It also discusses their uses in formulations employed by the chemical process industries. Sorbitol, now a standard chemical commodity, is a polyol, as are glycerine, pentaerythritol and the glycols. Its manufacture from natural sugars which are abundant and low in cost, the booklet points out, affords freedom from fluctuating supply and rising costs. Copies are available without charge. (C-30)

Mechanical Seal

A heavy-duty mechanical seal which will withstand pressures up to 1,000 psi is now being offered by the Crane Packing Co. Known as the Type 8-B shaft seal, it is designed for applications where ruggedness to withstand high pressures is an important factor. A packaged unit, the Type 8-B shaft seal is factory inspected and furnished pre-assembled on a sleeve for ready installation. When used with split case pumps it is not necessary to lift the upper half of the casting to install or remove the seal. Extremely compact design adapts it for use in conventional pump stuffing boxes.

Incorporating a rotating sealing washer and a floating stationary seat, balance is accomplished by lowering the washer face to a point where stuffing-box pressure is not exerted against the sealing area. To insure peak efficiency, mating faces of the washer and seat are precision-lapped to .0000232-inch.

The rotating assembly consists of a retainer positively driven by the sleeve, with the washer driven from dents in the retainer. The assembly is held in contact with the lapped face of the seat by means of multiple springs equally spaced around the sleeve at the back of the retainer. "O" rings provide sealing between sleeve and shaft and also between washer and sleeve. This affords sufficient flexibility in the rotating assembly to compensate for axial and radial shaft movement and for normal wear of sealing faces. Another "O" ring is used between the stationary seat and end plate as a cushioning to prevent stresses on the highly-lapped seat face. For further information write to the Crane Packing Co., Dept. T-9. (C-31)

Sandoz Booklets

Three new booklets have been issued by Sandoz Chemical Works Inc. which will be of particular interest to those engaged in dyeing and finishing the newer synthetics. The informative Sandoz booklets are titled "Dyeing of Acrilan," "Dyeing Dacron Under Pressure" and "Dyeing of Orlon 41." Available on request, the booklets contain technical information and dyeing procedures which should prove to be an invaluable aid to those in the dyeing and finishing department. (C-32)

New Textile Dyes

A new line of dyestuffs consisting of mixtures of naphthols and stabilized diazos has been made available to the textile industry by the Hilton-Davis Chemical Co. Division, Sterling Drug Inc., according to Nelson S. Knaggs, vice-president in charge of sales. Known as Spectrosols, the new dyes are companion products to the line of Spectrolene colors introduced by Hilton-Davis in 1951 and now in wide use by textile mills. Almost two years of laboratory research and thorough plant-testing, including actual mill runs, preceded perfection of the Spectrosol dyes.

Of outstanding importance to textile manufacturers, Mr. Knaggs explained, is the fact that the newly-developed mixtures of naphthols and stabilized diazos are prepared on a "custom-built" basis for individual mills. Dyes are "made up fresh" to mill specifications. Purpose of this arrangement is to reduce to a minimum the loss of color value due to prolonged storage, according to Mr. Knaggs. He pointed out that the maximum brilliancy and color value of the dyestuffs are actually assured under the Hilton-Davis plan.

The chemical firm announced that dozens of color combinations are available. Prices are based on the naphthol-Spectrolene combinations used, with no extra charge for mixing. The Spectrolenes will continue to be offered to mills which find it advantageous to mix their own naphthol-stabilized diazo solutions. (C-33)

New Research Chemical

Arnold, Hoffman & Co. Inc. has announced the availability of 9,10-dihydroxystearic acid in research quantities. The product is adaptable for use in esters for plasticizers or waxes, in soaps for detergents or greases, in amides, sulfated products, ethylene oxide condensates and chemical syntheses, and other uses. It has a 175-180 acid number and iodine value of 6 max., a melting point of 80°-85°, and a mole per cent hydroxyl of 165-175. Color ranges from white to pale tan. Arnold, Hoffman's research laboratories will supply further technical data and a sample on request. (C-34)

Tempron Bulletin

The American Hard Rubber Co.'s new heat and chemical resistant synthetic hard rubber compound, Tempron, is described fully in the new four-page bulletin 96-A. Ideal for pipe and fittings, this material has greater rigidity, heat resistance and chemical resistance than other soft or hard nitrile-base compounds hitherto available. In chemical resistance at elevated temperatures it excels other rubber and plastic materials. At room temperature it resists many organic chemicals which attack natural rubber, soft rubber and plastics. Tempron is also available as sheet, rod and tubing and molded parts. This bulletin gives complete information on pipe and fitting sizes as well as data covering the physical and electrical properties of Tempron. It lists many chemical solutions that can be handled. (C-35)

Dynadye-V

Dynadye-V, said to be the answer to spotty dyeing problems on Dacron and Dacron blends, has been developed by the Amalgamated Chemical Corp. The new product, a solution of a sodium salt combined with suitable surface active agents, encourages complete dye solubility and if correctly used, eliminates tarry deposits and ends spotty blotches, it was said. According to a spokesman for the firm, Dynadye-V has been successful commercially for packaged yarns,

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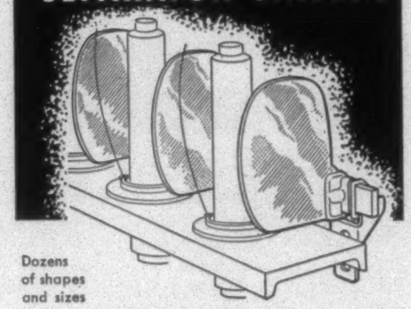

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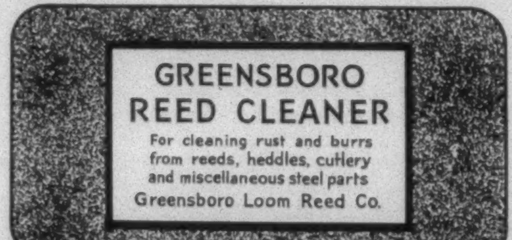

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skeins, piece goods and finished goods. It is particularly designed for mills that have difficulty in preventing spotty results on Dacron, Dacron wool, Dacron acetate and Dacron spun viscose fabrics as well as Orlon, it was said. (C-36)

Rodney Hunt Bulletin

A new bulletin is available showing the range of Rodney Hunt engineered stainless steel fabrications. Particular attention is given to stainless steel tanks of standard and special construction in a wide range of sizes. A simplified quotation request sheet with detailed standard specifications is included. With a large, modern shop exclusively for this stainless steel work, Rodney Hunt is able to handle stainless steel fabrication from small vessels to complex equipment for textile, paper, chemical and other industries. Write for Bulletin No. 153, Rodney Hunt Machine Co. (C-37)

Materials Handling Chart

Kornylark Engineering Corp. announces the release of a materials handling equipment reference chart describing its full line of materials handling equipment. The chart is prepared in a handy to use form suitable for either wall mounting or folding to 8½x11 for easy filing. For quick reference its 50 illustrations of materials handling equipment are classified into the categories of "Package Handling," "Bulk Handling," "Roller and Wheel Conveyor," "Monorail," "Storage Equipment," "Power and Hand Trucks," "Truck Accessories," "Cranes and Hoists" and "Chain and Cable Conveyors." Production men, purchasing agents, executives and engineers will find it extremely useful when considering materials handling problems. This chart will be mailed free of charge to readers upon request. (C-38)

New Partlow Manual

The Partlow Corp. has published a new edition of its manual titled "The Design and Process Engineers Guide to Industrial Temperature Measurement and Control." This newly-revised 24-page two-color manual—available without charge to process engineers, plant manager, design engineers, and heating engineers—presents the basic principles of industrial temperature control in practical fashion. It defines different types of control systems and distinguishes between them so that the engineer can select the type most suited to a particular application.

The manual discusses: the eight ways of responding to temperature; the five ways of putting that response to work; and the nine basic Partlow instrument types. It then takes up evaluation of systems and the important considerations in application engineering.

Clarification is brought to the sometimes neglected subjects of: (1) the influence of the firing system upon design of the control system; (2) fundamental principles of mercury-bulb installations; and (3) the basic concepts of electrical and mechanical control theory. These concepts include: the control circuit versus the load circuit; one-point, two-point and program control; two-wire, three-wire and potentiometric control; two-position control; the use of diagram valves; and the reasons for three different types of temperature-sensitive elements being available.

Typical control circuits and piping system arrangements, as well as the ranges and calibrations of scales and dials are presented diagramatically. Liberally illustrated and highly organized for easy reference, the bulletin is more concerned with educational information than with sales claims.

Copies of Bulletin No. 101 may be obtained from any Partlow representative, the factory, or through this publication. (C-39)

Honeywell Catalog

The Brown Instruments Division of Minneapolis-Honeywell Regulator Co. recently made available its Catalog 1530, "ElectroniK Controllers," which comprises 56 fact-filled pages describing all types of ElectroniK control instruments which are used to measure and control a multiplicity of process variables. Included are detailed specification and control action descriptions and ratings for both electric and pneumatic-type controllers. The literature also presents engineering data on the Electr-O-Line and Electr-O-Pulse electric control relays. The new Honeywell catalog is available to readers on request. (C-40)

Serving The Textile Industry

Charlotte Office Leader

Announcement has been made by A. F. Anjeskey, sales manager of Cleveland Tramrail Division of Cleveland Crane & Engineering Co., Cleveland, Ohio, that Charlotte, N. C., led the 45 Tramrail offices in the United States in sales for the year ending Dec. 31, 1952.

The Charlotte office, covering the two Carolinas, is handled on a franchise by Engineering Sales Co., 123-125 West 29th Street. The Charlotte company is owned and operated by S. R. and V. G. Brookshire, sales engineers, who organized the company in 1932. Tramrail sales, warehousing, erection and services are supervised by H. T. Preston, assisted by George Bickett and Carl Philbeck. Overhead Tramrail includes cranes, hoists, transfer bridges and automatic dispatch systems.

The final standings of the first 15 offices leading in sales where Charlotte, Toronto, Cleveland, Syracuse, Pittsburgh, Detroit, Los Angeles, San Francisco, Milwaukee, Akron, Youngstown, Cincinnati, Chicago, Buffalo and Peoria.

S. R. Brookshire, in commenting on this distinction for Charlotte and his company, pointed out the importance of the industrial growth in the two Carolinas, which is making the rest of the nation sit up and take notice. Other franchise industrial accounts handled by Engineering Sales Co. include Standard conveyors, Elwell-Parker electric trucks, Barrett lift trucks, Nutting floor trucks and DeLuxe steel shelving.

Barrett Buys Resin Plant

Barrett Division, Allied Chemical & Dye Corp., announced recently that it had acquired the Greensboro, N. C., plant of Synvar Southern Corp. The plant comprises facilities for manufacture of urea-formaldehyde resins. Barrett stated that it would continue to make the same grades of resins as have heretofore been supplied by Synvar Southern Corp. to the textile industry. Barrett's extensive research facilities should assure better service to customers.

Emmons Named Distributor

Emmons Loom Harness Co., maker of weave room equipment since 1867, has been designated a distributor of Dandux canvas baskets, hampers, trucks, and other products. Quality of the Dandux line, according to Emmons, is in key with the latter's own standards for production of Emmons heddles, heddle frames, reeds, slasher and striker combs and other equipment.

Dandux products, Emmons notes, are made of canvas especially woven for strength, toughness and durability. Frames are of high grade spring steel, which enables these containers to spring into shape after collision. Flat, electric galvanized steel strips form exceptionally strong bottoms that resist rust and corrosion. Only the best available hardwood is used in making the runners for Dandux baskets, according to Emmons, and only the finest available wheels (rubber, composition or semi-steel, stationary or swivel) are used to equip the trucks for easy maneuverability.

Included among Dandux canvas products now available through Emmons are shipping hampers with wood tops or canvas tops, doff baskets, coal baskets, elevated baskets and trucks, round top baskets, square baskets, and steaming baskets. Also available are Dandux canvas bags, including round

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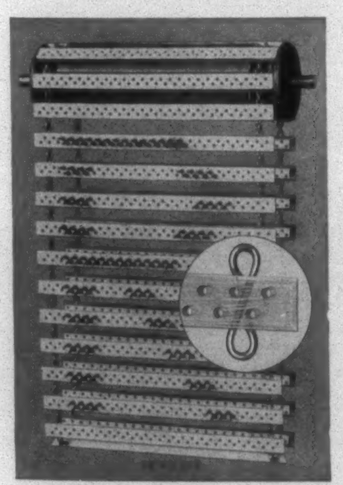

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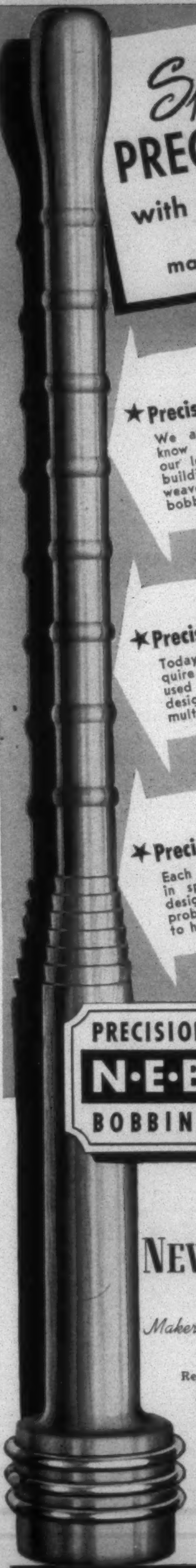

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bottom and square bottom shipping bags, utility bags, and flat shipping bags. "There is a Dandux canvas product to fit every handling need," is the claim of the makers, who emphasize that their careful control of production brings the economy of mass production with the fine features of highest quality.

Full data on Dandux and other products distributed are available from Emmons "E"-Men, located at strategic spots throughout the United States and Canada, and from Emmons Loom Harness Co., Lawrence, Mass.

Plant In Operation

A completely modernized Hartford Rayon plant began operation of its first production unit recently according to James D. Wise, president of Bigelow-Sanford Carpet Co. Inc. and Hartford Rayon Corp. The first unit has a capactiy of ten million pounds of staple rayon annually for textile use. A second unit producing eight million pounds of rayon staple for carpets is expected to be in operation in May. The plant is located in Rocky Hill, Conn.

The Hartford Rayon Corp. is a wholly-owned subsidiary of the Bigelow-Sanford Carpet Co. The plant has been shut down since February 1952 in order to speed up conversion of manufacturing facilities from continuous filament rayon to staple fiber. In the future the plant will produce staple fiber exclusively. The poundage output of staple rayon will be nearly four times that of the plant's former filament production.

Initial production will be 1.5-denier, 1½-inch bright staple rayon for the textile trade. The later carpet staple production will be devoted to 15-denier, 3½-inch delustered staple. The carpet staple will feature the smooth, almost round cross-section specified by Bigelow-Sanford's product research department, for use in blended carpets. Although the carpet rayon production is designed primarily for Bigelow-Sanford use, the company plans to offer some of Hartford Rayon's output to other carpet manufacturers.

While little has been added to the over-all dimensions of the Hartford Rayon plant, and changes are barely visible from the exterior, a major rearrangement of the interior has been effected to accommodate the new equipment. Carpet and textile staple will be produced in separate, independent units, so that, in effect, the new layout incorporates two plants under one roof, each making a different type of staple. The Hartford Rayon plant not only is equipped with the most modern production machinery, but also has new refrigeration, air conditioning, and other service equipment. Additional steam and power generating equipment has also been installed.

Manager of the plant is Carl F. Gram who joined Hartford Rayon in 1951 after 17 years with the North American Rayon Corp. and six years with the Celanese Corp. H. M. Bailey Jr., long associated with Hartford Rayon, continues as sales manager with offices at 261 Fifth Avenue, New York. The company also maintains a sales office in Greensboro, N. C., with Thomas L. Leslie Jr. as Southern sales representative. George McGrath, who recently joined the company, is sales service representative, also located at the New York office.

Broaden Engineering Service

Over the years Proctor & Schwartz Inc. has accumulated a great store of process engineering experience in many different fields. From time to time plans save been discussed whereby this engineering skill could be made available to other organizations on a practical and attractive basis.

In line with the forward-looking thinking that is formulating Proctor policy, a plan is being worked out which makes this possible on a limited basis. With some manufacturing and defense programs developing that do not require the firm's usual amount of engineering, it is now in a position to offer Proctor engineering service for projects which may have been delayed for lack of qualified personnel.

Plans currently developing make it possible to undertake a complete investigation or project, even to the extent of supervising actual in-plant changes. Naturally, in keeping with Proctor's long-established policy, any projects undertaken or discussed will be held in the strictest confidence.

This broadening of Proctor service is by no means considered as eliminating the need for consulting engineers. Rather, it can supplement their work and may well be used to carry out broad recommendations made by these men.

While Proctor's capacity is limited, as has been pointed out, the step is being taken after careful planning and consideration. The firm believes it marks another forward move in the over-all plan to broaden Proctor service to industry.

Name Is Changed

Diamond Alkali Co. announced recently that the name of its subsidiary, Kolker Chemical Works Inc., a New Jersey corporation, has been changed to Diamond Alkali Organic Chemicals Division Inc. Diamond purchased the Kolker concern in August of 1951 as part of its expansion program in the organic chemicals field. The subsidiary has plants at Newark, N. J., and Houston, Tex., which manufacture a wide range of organic chemicals for agriculture and industry.

Named Sales Agent

Bullard Clark Co., through its E. H. Jacobs Northern Division, Danielson, Conn., has announced that it is now sales agent for the American Reed Co., Lawrence, Mass. The American reeds are a typically high-quality item added to the growing line of Jacobs loom necessities. Both the pitch band and all-metal reeds are entirely machine made. The line is complete and while particular emphasis has so far been placed on woolen and worsted reeds, it is expected that dents beyond 39 dents to the inch will be available.

Deliveries are being made out of Lawrence. Notices have gone out that orders may be placed by mail or phone with either the American Reed Co. or E. H. Jacobs Northern Division. A complete stock of standard pitch-band reeds, five to 21 dents, 5½ inches high, 80½ inches and 91 inches is maintained and shipment can be made within a few minutes after an order is received.

Jenkins Reneedling Co.

W. J. Simmons has purchased the interest of R. B. Jenkins in Jenkins Reneedling Co., Gastonia, N. C., and has resigned as office manager and secretary of Jenkins Metal Shops, Gastonia, to devote his full time to Jenkins Reneedling Co. Mr. Simmons and the other active member of Jenkins Reneedling Co., George W. Rhyne, have been the only two active members since its founding in 1945. Mr. Rhyne and Mr. Simmons have divided up the stock in a 50-50 split and will hold office as president and secretary and treasurer, respectively. The business will be operated as usual and there will be no change in personnel. At Jenkins Metal Shops Mr. Jenkins has been succeeded by Knox Whitesides.

Ideal Purchases Machinery

Arnold W. Kincaid, president of Ideal Industries Inc. of Bessemer City, N. C., has announced the purchase of all of the machinery and equipment of Gaston Textile Parts Co. of Dallas, N. C. According to Mr. Kincaid, his company has installed all of this equipment in its new building in Bessemer City to increase production of Ideal high-speed ball bearing drawing rolls.

The new building, finished only 15 months ago, had been equipped to meet an optimistic estimate of orders to be filled but this second expansion was made necessary by a sharply accelerated demand for the company's product. "Apparently the textile trade is satisfied that our claims of greater speed, better quality roving, and reduced maintenance are justified," says Mr. Kincaid. "To date we have installed over 33,000 hardened and ground fluted rolls, most of them on a money back guarantee, and not one single one of them has ever been returned."

Inderfurth Named Agent

The Page-Madden Co. of Mineola, N. Y., manufacturer of all types of porcelain guides for textile machinery, announces the appointment of Karl H. Inderfurth of Charlotte, N. C., as its exclusive Southern agent. Mr. Inderfurth's office is located at 1816 Liberty Life Building, Charlotte. In addition to the porcelain guides manufactured by the Page-Madden Co., Mr. Inderfurth will also handle the company's recently developed unglazed porcelain guides known as Pamaco.

Firm Expands Activities

Product Sales Inc., Whitman, Mass., has increased its activities to cover the whole of the United States in the sales and service of Machinecraft's Climax ball bearing top roll. Heretofore, Product Sales Inc. has been handling Climax in the Northeastern states only. To represent Climax in the added territory, three new salesmen have been added to Product Sales' staff. These are J. H. Canady, Montgomery, Ala., for the states of Alabama, Georgia, Louisiana, Mississippi and Tennessee; Dudley Dunlop, 502 Montgomery Bldg., Spartanburg, S. C., for South Carolina; and Ray McCauley, 412 Wilder Bldg., Charlotte, N. C., for the states of North Carolina and Virginia. Frank H. Cotton has been promoted to sales office manager at the Whitman office of Product Sales Inc.

New Mathieson Plant

Plans for a new plant to be built by Mathieson Chemical Corp. at Morgantown, W. Va., to produce caprolactam, a raw material to be used in the production of nylon fiber, were jointly announced Feb. 25 by Mathieson and American Enka Corp.

The new plant is expected to be the first in the chemical industry to produce commercial quantities of caprolactam and will provide a source of raw material for American Enka in the manufacture of nylon. American Enka was recently licensed to produce nylon under Du Pont patents and is building a new nylon fiber plant adjacent to its rayon yarn factory at Enka, N. C.

Mathieson's caprolactam plant is based upon a process developed by its own research and engineering division. Mathieson emphasized that it intends to confine its activities to the production of monomers and will not go into production of fiber.

Veteran Employees Honored

At the 26th annual meeting and banquet of Watson-Williams Mutual Relief Association held recently in the Millbury Town Hall, eight employees of Watson-Williams Mfg. Co. received 25-year awards of wrist watches and certificates for a quarter century of service. These recipients included Frank J. Gaulin, Ovila L. Gibeault, Frederick J. Lague, Henry and Cyrille Millette, father and son, Theron L. Pope, Helen E. Richmond of the Leicester, Mass., plant, and Theodore M. Trottier. Wilbur L. Watson, president of Watson-Williams Mfg. Co., shuttle manufacturer, also presented 15-year awards and gifts of cash to two other employees.

Visit Steel Warehouses

Modern steel distribution as a strong factor in Southern industrial expansion was in the spotlight recently during three press tours sponsored by the Southern Chapter of the American Steel Warehouse Association. Business editors of daily newspapers, trade publications, and Chamber of Commerce officials in New Orleans, Birmingham, and Charlotte visited typical steel warehouses in each city to see at first hand how tremendous tonnages of steel are made available for immediate delivery in small quantities to thousands of end-users.

Editors visited the warehouses of Jones & Laughlin Steel Corp. and Moore Steel Inc. in New Orleans on Feb. 23, O'Neal Steel Co. and Arnold-Brown Metals & Supply Co. in Birmingham on Feb. 26, and Steel Service of Carolina and Edgcomb Steel Co. in Charlotte on Feb. 27. The guests had lunch with association members in each city to discuss current supply conditions and business prospects. J. E. Doxsey, assistant to the president of A.S.W.A., Cleveland, Ohio, was present at each tour. To date the association and its regional chapters have held 14 similar tours for editors in important industrial centers from coast to coast.

Draper Gets Merit Award

The Draper Corp. of Hopedale, Mass., has received a Merit Award by the Associated Industries of Massachusetts in the fifth annual Contest for Financial Reports to Employees. The aim of the contest is "to encourage the use of financial reports to employees as an effective means of improving employer-employee relations and of strengthening the concepts of American free enterprise."

Acrylic Monomer Plant

Rohm & Haas Co. has recently completed and put into operation a new plant for the production of acrylic monomers, raw materials used in the manufacture of the company's Rhoplex finishes, Acrysol sizes, and other products. The new plant represents an $8,000,000 addition to the company's petrochemical operations at Deer Park, near Houston, Tex., according to Dr. D. S. Frederick, vice-president. An entirely new process is being used, which employs as its raw materials acetylene, carbon monoxide, and various alcohols.

This is the second $8,000,000 installation at Deer Park for the production of acrylic monomers. Two years ago, the company completed a plant there for the manufacture of hydrogen cyanide, another important raw material. Dr. Frederick stated that these major investments in plant facilities reflect the company's determination to maintain its leadership in the field of acrylic products, by manufacturing them from basic raw materials rather than purchased intermediates.

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bottom and square bottom shipping bags, utility bags, and flat shipping bags. "There is a Dandux canvas product to fit every handling need," is the claim of the makers, who emphasize that their careful control of production brings the economy of mass production with the fine features of highest quality.

Full data on Dandux and other products distributed are available from Emmons "E"-Men, located at strategic spots throughout the United States and Canada, and from Emmons Loom Harness Co., Lawrence, Mass.

Plant In Operation

A completely modernized Hartford Rayon plant began operation of its first production unit recently according to James D. Wise, president of Bigelow-Sanford Carpet Co. Inc. and Hartford Rayon Corp. The first unit has a capactiy of ten million pounds of staple rayon annually for textile use. A second unit producing eight million pounds of rayon staple for carpets is expected to be in operation in May. The plant is located in Rocky Hill, Conn.

The Hartford Rayon Corp. is a wholly-owned subsidiary of the Bigelow-Sanford Carpet Co. The plant has been shut down since February 1952 in order to speed up conversion of manufacturing facilities from continuous filament rayon to staple fiber. In the future the plant will produce staple fiber exclusively. The poundage output of staple rayon will be nearly four times that of the plant's former filament production.

Initial production will be 1.5-denier, 1½-inch bright staple rayon for the textile trade. The later carpet staple production will be devoted to 15-denier, 3½-inch delustered staple. The carpet staple will feature the smooth, almost round cross-section specified by Bigelow-Sanford's product research department, for use in blended carpets. Although the carpet rayon production is designed primarily for Bigelow-Sanford use, the company plans to offer some of Hartford Rayon's output to other carpet manufacturers.

While little has been added to the over-all dimensions of the Hartford Rayon plant, and changes are barely visible from the exterior, a major rearrangement of the interior has been effected to accommodate the new equipment. Carpet and textile staple will be produced in separate, independent units, so that, in effect, the new layout incorporates two plants under one roof, each making a different type of staple. The Hartford Rayon plant not only is equipped with the most modern production machinery, but also has new refrigeration, air conditioning, and other service equipment. Additional steam and power generating equipment has also been installed.

Manager of the plant is Carl F. Gram who joined Hartford Rayon in 1951 after 17 years with the North American Rayon Corp. and six years with the Celanese Corp. H. M. Bailey Jr., long associated with Hartford Rayon, continues as sales manager with offices at 261 Fifth Avenue, New York. The company also maintains a sales office in Greensboro, N. C., with Thomas L. Leslie Jr. as Southern sales representative. George McGrath, who recently joined the company, is sales service representative, also located at the New York office.

Broaden Engineering Service

Over the years Proctor & Schwartz Inc. has accumulated a great store of process engineering experience in many different fields. From time to time plans save been discussed whereby this engineering skill could be made available to other organizations on a practical and attractive basis.

In line with the forward-looking thinking that is formulating Proctor policy, a plan is being worked out which makes this possible on a limited basis. With some manufacturing and defense programs developing that do not require the firm's usual amount of engineering, it is now in a position to offer Proctor engineering service for projects which may have been delayed for lack of qualified personnel.

Plans currently developing make it possible to undertake a complete investigation or project, even to the extent of supervising actual in-plant changes. Naturally, in keeping with Proctor's long-established policy, any projects undertaken or discussed will be held in the strictest confidence.

This broadening of Proctor service is by no means considered as eliminating the need for consulting engineers. Rather, it can supplement their work and may well be used to carry out broad recommendations made by these men.

While Proctor's capacity is limited, as has been pointed out, the step is being taken after careful planning and consideration. The firm believes it marks another forward move in the over-all plan to broaden Proctor service to industry.

Name Is Changed

Diamond Alkali Co. announced recently that the name of its subsidiary, Kolker Chemical Works Inc., a New Jersey corporation, has been changed to Diamond Alkali Organic Chemicals Division Inc. Diamond purchased the Kolker concern in August of 1951 as part of its expansion program in the organic chemicals field. The subsidiary has plants at Newark, N. J., and Houston, Tex., which manufacture a wide range of organic chemicals for agriculture and industry.

Named Sales Agent

Bullard Clark Co., through its E. H. Jacobs Northern Division, Danielson, Conn., has announced that it is now sales agent for the American Reed Co., Lawrence, Mass. The American reeds are a typically high-quality item added to the growing line of Jacobs loom necessities. Both the pitch band and all-metal reeds are entirely machine made. The line is complete and while particular emphasis has so far been placed on woolen and worsted reeds, it is expected that dents beyond 39 dents to the inch will be available.

Deliveries are being made out of Lawrence. Notices have gone out that orders may be placed by mail or phone with either the American Reed Co. or E. H. Jacobs Northern Division. A complete stock of standard pitch-band reeds, five to 21 dents, 5½ inches high, 80½ inches and 91 inches is maintained and shipment can be made within a few minutes after an order is received.

Jenkins Reneedling Co.

W. J. Simmons has purchased the interest of R. B. Jenkins in Jenkins Reneedling Co., Gastonia, N. C., and has resigned as office manager and secretary of Jenkins Metal Shops, Gastonia, to devote his full time to Jenkins Reneedling Co. Mr. Simmons and the other active member of Jenkins Reneedling Co., George W. Rhyne, have been the only two active members since its founding in 1945. Mr. Rhyne and Mr. Simmons have divided up the stock in a 50-50 split and will hold office as president and secretary and treasurer, respectively. The business will be operated as usual and there will be no change in personnel. At Jenkins Metal Shops Mr. Jenkins has been succeeded by Knox Whitesides.

Ideal Purchases Machinery

Arnold W. Kincaid, president of Ideal Industries Inc. of Bessemer City, N. C., has announced the purchase of all of the machinery and equipment of Gaston Textile Parts Co. of Dallas, N. C. According to Mr. Kincaid, his company has installed all of this equipment in its new building in Bessemer City to increase production of Ideal high-speed ball bearing drawing rolls.

The new building, finished only 15 months ago, had been equipped to meet an optimistic estimate of orders to be filled but this second expansion was made necessary by a sharply accelerated demand for the company's product. "Apparently the textile trade is satisfied that our claims of greater speed, better quality roving, and reduced maintenance are justified," says Mr. Kincaid. "To date we have installed over 33,000 hardened and ground fluted rolls, most of them on a money back guarantee, and not one single one of them has ever been returned."

Inderfurth Named Agent

The Page-Madden Co. of Mineola, N. Y., manufacturer of all types of porcelain guides for textile machinery, announces the appointment of Karl H. Inderfurth of Charlotte, N. C., as its exclusive Southern agent. Mr. Inderfurth's office is located at 1816 Liberty Life Building, Charlotte. In addition to the porcelain guides manufactured by the Page-Madden Co., Mr. Inderfurth will also handle the company's recently developed unglazed porcelain guides known as Pamaco.

Firm Expands Activities

Product Sales Inc., Whitman, Mass., has increased its activities to cover the whole of the United States in the sales and service of Machinecraft's Climax ball bearing top roll. Heretofore, Product Sales Inc. has been handling Climax in the Northeastern states only. To represent Climax in the added territory, three new salesmen have been added to Product Sales' staff. These are J. H. Canady, Montgomery, Ala., for the states of Alabama, Georgia, Louisiana, Mississippi and Tennessee; Dudley Dunlop, 502 Montgomery Bldg., Spartanburg, S. C., for South Carolina; and Ray McCauley, 412 Wilder Bldg., Charlotte, N. C., for the states of North Carolina and Virginia. Frank H. Cotton has been promoted to sales office manager at the Whitman office of Product Sales Inc.

New Mathieson Plant

Plans for a new plant to be built by Mathieson Chemical Corp. at Morgantown, W. Va., to produce caprolactam, a raw material to be used in the production of nylon fiber, were jointly announced Feb. 25 by Mathieson and American Enka Corp.

The new plant is expected to be the first in the chemical industry to produce commercial quantities of caprolactam and will provide a source of raw material for American Enka in the manufacture of nylon. American Enka was recently licensed to produce nylon under Du Pont patents and is building a new nylon fiber plant adjacent to its rayon yarn factory at Enka, N. C.

Mathieson's caprolactam plant is based upon a process developed by its own research and engineering division. Mathieson emphasized that it intends to confine its activities to the production of monomers and will not go into production of fiber.

Veteran Employees Honored

At the 26th annual meeting and banquet of Watson-Williams Mutual Relief Association held recently in the Millbury Town Hall, eight employees of Watson-Williams Mfg. Co. received 25-year awards of wrist watches and certificates for a quarter century of service. These recipients included Frank J. Gaulin, Ovila L. Gibeault, Frederick J. Lague, Henry and Cyrille Millette, father and son, Theron L. Pope, Helen E. Richmond of the Leicester, Mass., plant, and Theodore M. Trottier. Wilbur L. Watson, president of Watson-Williams Mfg. Co., shuttle manufacturer, also presented 15-year awards and gifts of cash to two other employees.

Visit Steel Warehouses

Modern steel distribution as a strong factor in Southern industrial expansion was in the spotlight recently during three press tours sponsored by the Southern Chapter of the American Steel Warehouse Association. Business editors of daily newspapers, trade publications, and Chamber of Commerce officials in New Orleans, Birmingham, and Charlotte visited typical steel warehouses in each city to see at first hand how tremendous tonnages of steel are made available for immediate delivery in small quantities to thousands of end-users.

Editors visited the warehouses of Jones & Laughlin Steel Corp. and Moore Steel Inc. in New Orleans on Feb. 23, O'Neal Steel Co. and Arnold-Brown Metals & Supply Co. in Birmingham on Feb. 26, and Steel Service of Carolina and Edgcomb Steel Co. in Charlotte on Feb. 27. The guests had lunch with association members in each city to discuss current supply conditions and business prospects. J. E. Doxsey, assistant to the president of A.S.W.A., Cleveland, Ohio, was present at each tour. To date the association and its regional chapters have held 14 similar tours for editors in important industrial centers from coast to coast.

Draper Gets Merit Award

The Draper Corp. of Hopedale, Mass., has received a Merit Award by the Associated Industries of Massachusetts in the fifth annual Contest for Financial Reports to Employees. The aim of the contest is "to encourage the use of financial reports to employees as an effective means of improving employer-employee relations and of strengthening the concepts of American free enterprise."

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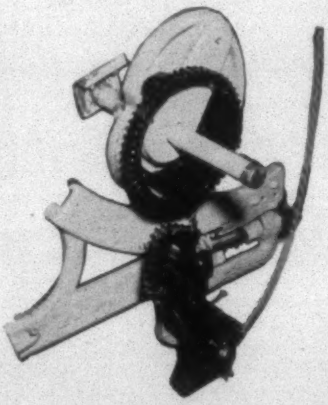

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This Bunch Builder device for a warp spinning frame makes a skill wind at the beginning, laying the first lap on the bobbin so as the tail of the thread will not whip up into the way of the top of the bobbin, breaking down on the last lap. Without this device, a piece of thread is left on the bobbin which is to be wound off or cut off, taking up the time of the operator as well as making imperfections on the bobbin with a cutting instrument which will sooner or later have to be replaced and is also expensive.

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COLUMBUS TEXTILE SPECIALTY CO.

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A.T.M.A. Petitions For Increased Tariff

The economic future of two industrial areas of Maine and the industry supplying jobs there may depend upon recommendations made by the United States Tariff Commission.

Appearing before the commission recently were representatives of the American Textile Machinery Association petitioning for an increase in present tariff rates on British-made carding machinery to protect their industry from an encroaching importers market, and put their industry on an equal competitive basis with foreign made goods. Several hundred families of Biddeford and Dexter, Maine, homes of the industry producing cotton card machinery can directly trace loss of jobs and depletion of earnings to exceptional low cost British competition of past two years.

These facts were brought out in testimony given by Robert M. Jones and James L. Truslow of Saco-Lowell Shops, R. J. McConnell of Whitin Machine Works and Ralph Leighton of Fay-Scott Corp., a wholly-owned subsidiary of Whitin Machine Works, appearing as witnesses before the Tariff Commission in behalf of their industry. Mr. Jones and Mr. McConnell stressed that both Saco-Lowell Shops and Fay-Scott Corp. had invested many millions of dollars in research and development of that type textile machinery and that a continued loss of their sales market would mean a loss of that investment in addition to the millions invested in capital equipment such as machine tools employed only in the manufacture of cotton carding machinery, and therefore unsuitable for other purposes. All witnesses stated that American and British cards are similar in construction with no technological difference.

Mr. Truslow pointed out that demand for card machinery is in general a replacement demand and the the American card machinery manufacturers are fully capable of supplying all domestic requirements. The loss of nearly 30 per cent of last year's domestic market to British imports is due to the price factor alone, he said. This unusual low price competition was made possible by the tariff rate of only ten cents set in 1948 under the general tariff agreements with the United Kingdom. Out of the loss of nearly $1 million worth of card machine business suffered during 1952 approximately half of that amount would represent a loss in wages to skilled workers of the two above industrial areas. He added, the influx of low cost British-made cards to the American market could set a pattern for future mill machinery purchase planning in replacement and expansion programs.

It was stressed the American industry does not wish to exclude British made goods but only to participate in the domestic market on a fair and equitable basis.

M. F. Thompson, testifying as former secretary of American Textile Machinery Association, presented evidence that the basic cost of production of British-made cards was less than $2,000 compared to the cost of producing similar machines by the American industry of about $3,500. This is not due to greater efficiency, he said, of the British because it takes 326 manhours to produce a British-made card compared to 279.6 manhours to produce a similar machine in the United States. He stressed the difference in cost is in the vastly higher wage rates paid American workers, especially skilled machinists of textile machinery shops, compared to the low wage rates of British labor for the same skills. In manufacture of cotton cards by the American industry the highly-skilled workmen employed earn an average straight time hourly rate of pay of $1.87, compared to a rate in Britain of approximately one-third that amount.

He pointed out, also, that England is protected from importation of American-made machines through licensing system of the British Board of Trade. He added that the same exceptional low cost competition that had made such inroads in the domestic market had caused an almost complete disappearance of Latin American markets for American-made cards. Additional losses in the domestic markets could conceivably result in the closing of American card producing plants, jeopardizing the livelihood of skilled machinists and adding further hardships to the communities in which they live.

Frederic W. Howe, president of Crompton & Knowles Loom Works, is president of the American Textile Machinery Association. The petition on behalf of the association was presented by John T. Noonan of Herrick, Smith, Donald, Farley and Ketchum, attorneys of Boston.

Weeks To Address Alabama Manufacturers

An address by Secretary of Commerce Sinclair Weeks will feature the annual meeting of the Alabama Cotton Manufacturers Association to be held April 9-11 at Biloxi, Miss. Secretary Weeks is scheduled to address the Alabama cotton manufacturers at noon, Saturday, April 11.

Three business sessions are slated, one Friday morning and two on Saturday morning. Friday's session will feature the presidential address by Association President Joe L. Jennings of West Point Mfg. Co. At the Saturday sessions committee reports will be heard and new officers elected.

For entertainment a number of interesting events are being arranged including the welcome party and linthead party, with members dressed in the styles of the "gay nineties." A smorgasbord also will be enjoyed and for the men an 18-hole golf tournament will be staged.

Industry Exemplifies Free Enterprise—Hertwig

The textile industry "more closely exemplifies the wholesome results of free enterprise and individual effort than any other single industry," according to Charles C. Hertwig of Macon, Ga., president of Bibb Mfg. Co. and immediate past president of the American Cotton Manufacturers Institute, who also said the textile industry exemplifies "that philosophy which is abhorrent to what we term as left-wing liberal thinkers." Because that is so, he added, "it has been subjected, at times, to attacks from radical sources.

"The very fact that we have been so attacked," he told the Columbus (Ga.) Rotary Club, "is evidence that we stand for the principles of justice and freedom and the right of the individual to advance himself by the application of work, intelligence and ingenuity."

Mr. Hertwig characterized textiles as the basic industry upon which the other major industrial developments in the South have been built. Tracing the development of textile mills in the region, the Bibb president said: "The fact that we here in the South were willing to buy new machinery rather than paying all our money out in dividends is the largest reason" for the industry's strong position in the region today.

The textile industry, Mr. Hertwig continued, not only is the largest employer in Georgia and brings in substantially

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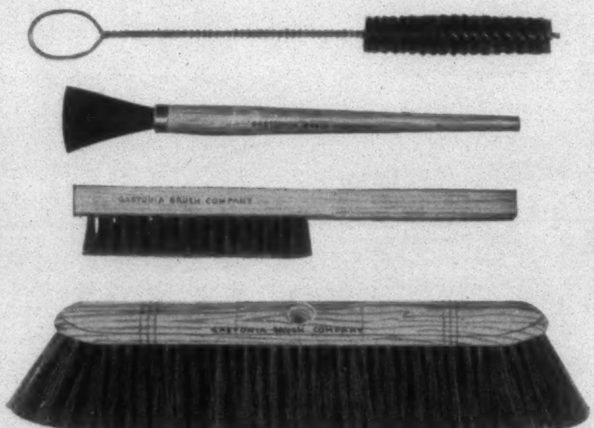

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GASTONIA, N. C.

half the income for non-durable goods made in the state, but it has encouraged the establishment of numerous other industries within Georgia and the Southeast.

He pointed out that the iron and steel industries supply the textile mills with materials for machinery and numerous other products which are a part of their operation. The chemical industry in the region has been growing rapidly because of the large consumption of chemicals by mills. The mills are tremendous users of oil, gas and electricity and have encouraged the power companies to so expand their operations as to take care of the needs of other industries which are moving into the area. He said that at the present, the textile industry in Georgia uses more than half of the industrial power supplied by the Georgia Power Co.

"I do not doubt," Mr. Hertwig declared, "that the recent location of several paper companies in the South was partly actuated by the large amount of paper containers, etc., used in the textile industry for the shipping and marketing of goods. I might go through a long list of manufacturers who have recently moved into this section which have proved to be adjuncts to the textile operation."

The speaker declared that this industry was intimately aware of its obligations not only to its stockholders and its employees but also to the communities in which it was situated.

"When we decide to install new machinery or build a community health center or a recreational hall," he added, "we want to do so not as an expedient just for our own benefit, or one which has been compelled by competition. On the contrary, we are determined to do so because of an awareness on our part that such things are the duties of good citizens—that they are a part of our obligations in helping our communities to progress and helping our citizens to become increasingly better citizens."

Synthetic Broad Woven Output Increases

Rayon and acetate production totaled 499 million linear yards in the fourth quarter of 1952. This is an increase of eight per cent above third quarter production and 19 per cent above the fourth quarter of 1951. Nylon fabric production increased seven per cent over the third quarter to reach a new quarterly high of 70 million linear yards. Production of all rayon and acetate fabric groups increased over the third quarter and over the corresponding period of the previous year. The output of silk and synthetics other than rayon, acetate and nylon was 44 million linear yards, the highest quarterly production reported since the series began in 1943.

QUARTERLY SUMMARY OF PRODUCTION, BY CLASS OF FABRIC

	Oct.-Dec. 1952 (preliminary)	July-Sept. 1952*	Oct.-Dec. 1951	Per cent change Oct.-Dec. 1952 from— July-Sept. 1952	Oct.-Dec. 1951
	Thousands of linear yards				
RAYON AND ACETATE BROAD WOVEN FABRICS, TOTAL	499,197	460,958	418,931	+8	+19
100 percent filament rayon and/or acetate fabrics	269,180	258,814	230,598	+4	+17
100 per cent spun rayon and/or acetate fabrics	104,987	89,899	96,416	+17	+9
Combination filament and spun rayon and/or acetate fabrics	61,902	57,654	54,821	+7	+13
Pile, upholstery, drapery, tapestry, and tie fabrics	12,429	11,816	8,449	+5	+47
All other rayon and/or acetate mixtures	50,699	42,775	28,647	+19	+77
NYLON BROAD WOVEN FABRICS (100 per cent nylon)	69,793	65,469	48,200	+7	+45
OTHER SYNTHETICS AND SILK FABRICS (includes mixtures except those primarily cotton, wool, rayon, or acetate).	43,506	33,128	34,339	+31	+27

A.A.T.C.C. Unit Lists Meeting Dates

Meetings of the South Central Section of the American Association of Textile Chemists & Colorists, for the remainder of 1953, recently were announced by the unit. The South Central Section will hold its Spring meeting May 23 at the Patten Hotel, Chattanooga, Tenn. The Summer outing of the group will be held Aug. 21-22 at the Chattanooga Golf & Country Club, and the final parley of the year, the Fall meeting, will be held Dec. 5 at the Patten Hotel, Chattanooga.

A.S.Q.C. Parley To Hold Textile Session

A one-day meeting to discuss textile quality control problems will be held May 29 by the textile division, American Society for Quality Control, during the society's annual meeting May 27-29. The meeting will be held at the Convention Hall in Philadelphia, Pa. Textile men interested in quality control are invited to attend.

During the morning session, starting at 8:30, E. S. Rudnick, director of research, Wamsutta Mills, will speak on "Statistics in Textiles With an Application." A panel discussion on evenness testing, with D. S. Hamby, associate professor of yarn manufacturing, School of Textiles, North Carolina State College, as moderator, will follow.

In the afternoon session, starting at 2:30, A. G. Klock of Bigelow-Sanford Carpet Co. will deliver a paper on "The Textile Industry." Dr. J. Labarthe, Senior Fellow, Mellon Institute of Research, will deliver a paper on "The Consumer's Stake in Textile Quality." W. S. Smith, West Point Mfg. Co., will be moderator for the afternoon meeting.

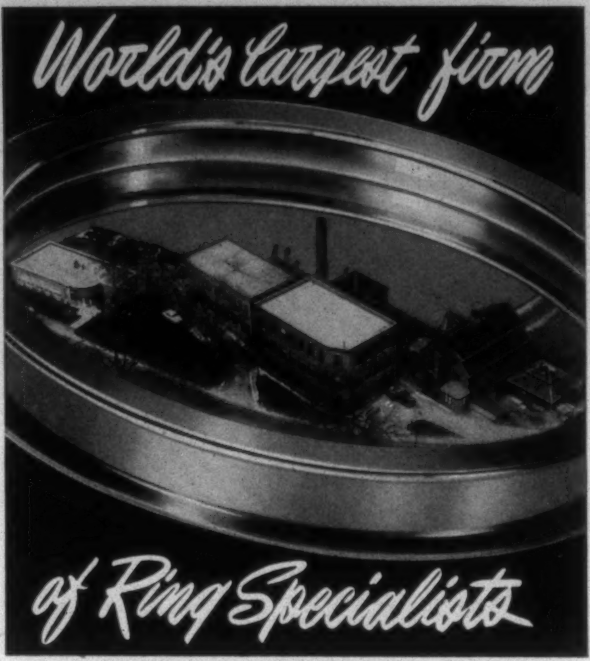
A.A.T.C.C. To Meet In Chicago Sept. 17-19

The American Association of Textile Chemists & Colorists will hold its 32nd national convention Sept. 17-19 at the Conrad Hilton Hotel in Chicago, Ill. The A.A.T.C.C. has adopted as its convention slogan "American Achievement Today Challenges Comparison" which, it says, "exemplifies the aims of our textile industry, and we are following this lead in planning our convention so that all activities, facilities and entertainment will challenge comparison."

According to Jack G. Kelley of E. I. du Pont de Nemours & Co., Chicago, convention publicity chairman, plans are being made to hold the exposition of exhibits in the exhibition hall of the Conrad Hilton Hotel, which is said to be adequate for any and every requirement of any exhibitor. "Accommodations are assured far beyond the limitations previously available," Mr. Kelley states, "and we are planning to welcome all of our members and guests and to prepare for them a convention unparalleled in recent years."

New Research Aid In Study Of Blends

A new method of measuring the contributions of fibers to blended fabrics was announced recently by the textile fibers department of Carbide & Carbon Chemicals Co., a division of Union Carbide & Carbon Corp., producer of Dynel. This method is so easily dramatized that it will be used as the basis for an intensive Fall campaign on the "Dynel inner structure." The procedure provides for separating and testing each of the component fibers in a blend for strength,



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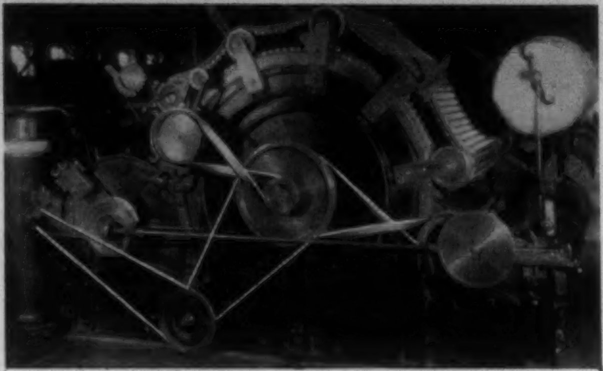

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wrinkle resistance, press or pleat retention, shape retention, shrinkage, washability, abrasion resistance and other properties.

Carl A. Setterstrom, Dynel sales manager, said that the method makes use of chemical extraction to remove other fiber components completely from a blend. In a Dynel-wool fabric, for example, the wool is dissolved, leaving only the Dynel portion to be examined and tested. The Dynel segment of the finished fabric can also be dissolved, with the wool portion remaining for study and evaluation.

"This new technique," Mr. Setterstrom said, "will eliminate some of the confusion over performance claims for blends containing percentages of the new science fibers. Because of Dynel's exceptional chemical resistance, the technique is applied most readily to blends using Carbide's fiber."

Developed by textile chemists at Carbide's technical service laboratories, South Charleston, W. Va., under T. A. Feild, director, the method was perfected during research originally conducted to test the chemical resistance of Dynel blends. The tentative name derives from the later objective of the research—to determine the properties the Dynel "inner structure" confers on the finished blend.

Basically, the new technique uses an old chemical research principle—isolation of the individual components of a compound. Blended fabrics containing two or more fibers are put through a series of baths, each of which extract completely one of the fibers. The result is a fabric, often only a delicate gossamer, which can nevertheless be subjected to careful performance studies.

The "Dynel inner structure" technique helps the technologist to predetermine in the laboratory the fiber content required to construct in the mill a blended fabric with specified properties for a given end-use.

Dynel was introduced to the American textile market in experimental yardages only two years ago. It has been successfully blended with wool in blankets, and in fabrics for military uniforms and shirtings on a large scale, and is now appearing in limited yardages in civilian apparel fabrics for men, women and children. These blended fabrics are demonstrating "a marked improvement in the quality of many fabrics available to the consumer. To the manufacturer, they offer improved methods of fabric production," Mr. Setterstrom said.

"Blending Dynel with wool improves on many traditional fabrics because of the higher strength of Dynel, which permits spinning finer, stronger yarns from a given grade of wool. Furthermore, certain low-grade wools that could not formerly be spun for use in better-grade clothes can now be used with no loss in quality of the finished garment," he maintained. "This means that coarser grades of wool, that previously had a limited number of end-uses, may now be used to produce better grade Winter-weight fabrics. In addition, the new blended yarns can be woven into lightweight fabrics, bringing wool back more extensively into the four-season clothing market. In short, wool and the man-made fibers make a good team," Mr. Setterstrom said.

The addition of Dynel to woolens or worsteds adds to the useful wear-life of the resultant fabrics, the sales manager pointed out. Crease and pleat retention in humid or wet weather, greater tear strength and durability—with less abrasion or "pilling" despite rugged wear—and a minimum of laundering or dry cleaning problems are among the plus values lent to a garment when Dynel is blended with wool in the proper proportions, he said.

The most extensive experience with Dynel-wool blends has been gained in supplying kersey uniform fabrics and "woolen" shirtings for the Marine Corps. One of the fabrics in the government specifications is a blend of 85 per cent wool and 15 per cent Dynel. To date, over 1,470,000 yards of kersey have been purchased in this blend, and over 720,000 yards of the shirting—a total of 2,200,000 yards of fabric.

The present uncertain world conditions may be expected to exert varying pressures upon the supply and price of wool. Therefore, the new fibers assume greater importance to wool producers and fabricators because of their more stable price and uniformity of production. Stressing the fact that no "substantial competition is foreseen between wool and Dynel or other man-made fibers, Mr. Setterstrom said that "wool will undoubtedly remain a basic textile fiber."

Two Volumes Theme Soluble Silicates

Soluble Silicates, in two volumes, by the late member of the board of directors of the Philadelphia Quartz Co., Dr. James G. Vail, is offered as the American Chemical Society Monograph No. 116. This comprehensive work, the most complete review of its kind, deals with the history, theory and application of the soluble silicates, and is available from the publisher, Reinhold Publishing Corp., 330 West 42nd Street, New York.

Volume I, 370 pages, details the theoretical aspects of the soluble silicates, discussing in particular manufacturing techniques and the homogeneous, heterogeneous and complex systems. A long section is devoted to the theory of detergency.

Volume II, 600 pages, is devoted to the practical application of silicates in industry today, with helpful references to the underlying theory. The opening chapter deals with the behavior of silicates in various types of soaps, synthetic detergents and combinations thereof. Other chapters pay particular attention to the film-forming properties of silicates with resulting industrial applications as adhesives, laminates, sizes, cements, plastics and fire protective materials. The author has gone into great detail on the use of soluble silicates in sols and gels, their properties as catalysts, protective agents, stabilizing materials and coagulation aids.

The entire treatise, supplemented with many charts and photographs, is of particular value to technologists of the adhesive, textile, detergent and gel industries, as well as a reference guide to the research chemist. Highly specialized language and terminology are held to a minimum, giving way to a writing style which is a delight in itself.

Complete Latin American Promotional Tour

The largest single promotional package to dramatize to foreign countries the co-ordinated workings of the U .S. textile industries has just completed a 16,000-mile tour of Latin America. The package was a high-fashion show called "La Sinfonia del Color" (Symphony of Color) sponsored by General Aniline & Film Corp. and General Dyestuff Corp., G.A.F.'s sole selling agent for its dyes and chemicals. In ten countries, industrial and business leaders,

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Sinfonia was conceived for a dual purpose. The first, according to Jack Frye, president of G.A.F., was to "illustrate American co-ordination and know-how to our Sister Republics in combining textiles, design and color in high-fashion styling." On the fashion end, Lord & Taylor of Fifth Avenue joined the project by providing 42 complete ensembles selected from the creations of top designers. Two Lord & Taylor executives accompanied the show: Mrs. Katharine Bensabat, head of the Latin American department, acted as fashion commentator (in Spanish and Portuguese), and Henry Callahan staged the individual performances.

The second purpose was the sales promotion of dyestuffs, Ansco color film and other G.A.F. products. Gen. John Hilldring, vice-president in charge of foreign operations for G.A.F., planned the promotional campaign with a V-approach: to create public style and color demand on the one hand, and to spark distributor relations on the other—then bringing both to converge on the sales target, the converters and manufacturers of textiles.

International Textile Industries Exposition

Plans are being completed for staging the 1953 International Textile Industries Exposition on Aug. 3-7 at the Hotel Astor in New York City. Floor plan for the event is ready and the many exhibits will highlight the new fibers, yarns, fabrics and finishes.

Interested persons desiring further information concerning the exposition may do so by contacting Expositions Inc., 12 West 72nd Street, New York 23, N. Y.

Summer Textile Research Course At M.I.T.

A four-week special Summer program in the principles of textile research to be given from July 6 to July 31 during the 1953 Summer Session at the Massachusetts Institute of Technology has been announced by Dr. Ernest H. Huntress, director of the M.I.T. Summer Session. The program, which will be given under the supervision of Edward R. Schwarz, professor of textile technology, will deal largely with the role of fundamental research in textiles as it relates to the interpretation and handling of laboratory findings.

"This involves," according to Professor Schwarz, "presentation and discussion of the newer techniques for physical and optical measurements, the tabular and graphical presentation of data, and applications of statistical methods such as rank correlation, significance testing, quality control, and variance analysis. In addition particular attention will be paid to the structure of fibers, yarns, and fabrics as it influences the properties of textiles and the nature and sequence of operations necessary to manufacture them."

Typical of the subject matter to be covered are the following topics: evaluation of abrasion tests, geometry of yarn twist, use of polarized light, modern cross-sectioning methods, applications of electronics, sound-velocity techniques, quality of performance, and the importance of the time factor.

The Summer course will include lectures, demonstration, and seminar sessions, supplemented with inspection of various laboratories at M.I.T. and in the Boston area. Further information concerning this Summer program in principles of textile research and application forms may be obtained from the Director of the Summer Session, Room 3-107, Massachusetts Institute of Technology, Cambridge 39, Mass.

Consider Dope Dyeing As Fastness Answer

The difficulties of dyeing a number of the new synthetic fibers is being overcome by putting dye pigments directly into the fibers as they are being made, Dr. George Royer, director of analytical chemistry, Calco Chemical Division, American Cyanamid Co., pointed out at the first meeting of the Washington (D. C.) Section of the American Association of Textile Chemists & Colorists.

Dr. Royer said that this method locks the color within the fiber as it is made and increases the fiber's color-fastness. He pointed out that this method has a number of drawbacks, however. Because the color is locked into the fiber, uses are more limited than that of fibers which can be dyed various colors at a later stage. For this reason, a smaller number of colors are in use.

Dr. Royer spoke on "The Scientific Approach to the Study of Dyeing and Finishing." He said that X-51, American Cyanamid's experimental fiber, is similar in structure to Orlon and Acrilan, both acrylic fibers, but dyes much more readily. The other fibers are packed much more tightly than is X-51, he said, and do not leave any place within the structure for dyes.

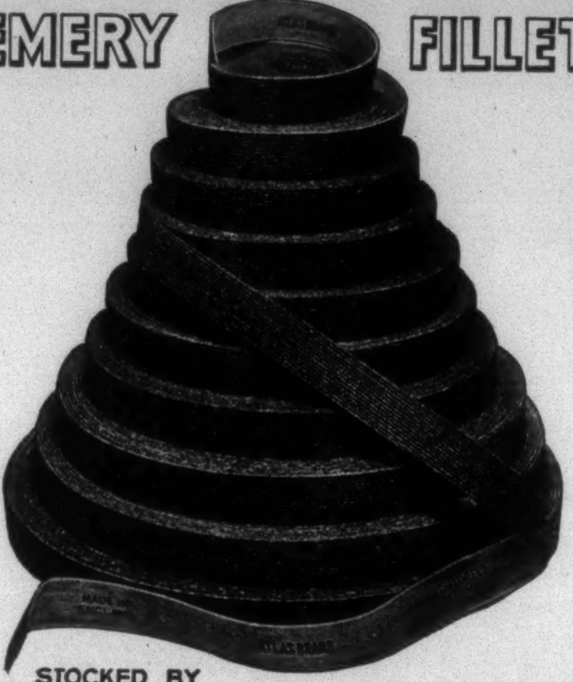
A study made in co-operation with the National Cotton Council, Dr. Royer said, showed very little difference in the dyeing speeds of 180 different types of cotton. The slight difference, he said, had not been expected because research had showed marked differences in the dyeing ratios of various types of wool.

Four members of the Washington Section were elected to the sectional committee. They are Miss Suzanne Davison, of the Bureau of Human Nutrition and Home Economics, Department of Agriculture; Edward L. Hansen, Sylvania Division, American Viscose Corp., Fredericksburg, Va.; Lawrence L. Heffner, William E. Hooper & Sons Co., Baltimore, Md., and Stephen J. Kennedy, Office of the Quartermaster General. Dr. Milton Harris, head of Harris Research Laboratories, chairman of the Washington Section, announced that Dr. Daniel Frischman, also of Harris Research Laboratories, had been named chairman of the Intersectional Contest Committee. Dr. Harris also said that the A.A.T.C.C. will hold its 1956 national convention in Washington. The next meeting of the Washington Section is scheduled tentatively for April 10.

Complete Washability For Direct-Dyed Rayons

A new finishing process that renders direct-dyed viscose rayon fabrics completely washable was announced jointly recently by the Aquex Development & Sales Corp. of Whippany, N. J., and the Sandoz Chemical Works of New York City. Process patents have been applied for in this new development, and the Aquex Corp. is drawing up licensing agreements for its use.

Besides complete washability, the new process, it is claimed by Aquex and Sandoz officials, imparts these consumer features: (1) Excellent dimensional stability, with low residual shrinkage and no progressive shrinkage on repeated launderings. (2) Excellent color fastness (as tested by A.A.T.C.C. Wash Test No. 3)—no color bleeding in



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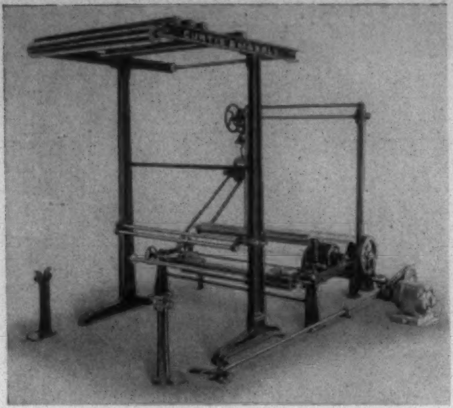

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home washing machines or in commercial laundries; excellent fastness to light, using direct dyes instead of vats. (3) Excellent retention of physical properties, tensile strength and flex abrasion resistance.

At the same time, it was stated that the process will be welcomed by the textile industry because of these characteristics: (1) Ease of production—use of standard finishing equipment and excellent bath life. (2) Production of heavy and medium shades without the expense of vat dyeing.

Officials of Aquex and Sandoz, who shared in the experimentation and production of the new process, hailed the development of "a real textile landmark, combining complete washability with color fastness and maintaining production simplicity."

The key components of the process are Aquex BNW, a finishing resin of the Aquex Co., and Cuprofix, Sandoz's dye fixing agent. The Aquex resin, technically, is a chelated vinyl acetate copolymer complex. Introduced little more than a year ago, it has found wide acceptance in processes that provide rayon with dimensional stability, washability, variety of hand, minimum mark-off and similar properties. Cuprofix, which has had long acceptance in its ability to impart rayons with color fastness through direct dyeing, is technically a complex copper-resin compound.

In combination with each other the other agents used in the process, the Aquex resin and the Cuprofix create a chemical bond which is responsible for the color fastness and other durable results. Exeprimentation on the new process has been in progress for several months. After completely successful laboratory testing, the process has thoroughly proved itself in actual production. Further information on the new process may be obtained by contacting either the Aquex Co., Whippany, N. J., or the Sandoz Chemical Works, 61 Van Dam Street, New York City.

Method Toward Solving Static Electricity

Today many industries are seeking an answer to the static problems, either inherent in the product or products they are processing or static developed by processing with high-speed machines, it was noted recently by G. S. McCarthy, president of Carolina Aniline & Extract Co., Charlotte, N. C., in an article on the subject.

"As fast as industry develops new fibers they seemedly have a lower regain of moisture from the point at which they are manufactured. This lack of their ability to absorb moisture increases their static potential. In an effort to overcome this dryness and static potential, plants run their humidity to an excessive point in order to affect absorbency, both for pliability and a partial immunization against static charges.

"Some have tried to solve the problem by coatings but since most of the coatings are plastics, one form or another, they themselves have latent protons or electrons anxious for release. Soluble or colloidal-type mineral oils have created a function of protecting natural and synthetic fibers against the exchange of these two elements. However, they are not very durable and merely immunize for one or two processes. Of course, in any scouring or thorough rinsing processing, they lose their permanency and protection.

"Since industry is seeking a solution to this problem, research and thoughts have gone along the line of a chemical that will permanently reject the electrons. One of the large chemical organizations has progressed along the theory of fatty alcohol phosphates. However, they have not proved entirely satisfactory from a permanency standpoint.

"The polyoxethylene monostearates, micro-crystalline waxes and polyamino alcohols when compounded properly seem to arrive at a closer answer. In various forms they are capable of meeting the problems of the paper, plastic, and textile industries. Some combinations are soluble in hydrocarbons and insoluble in water while others are soluble in water and insoluble in hydrocarbons.

"Their purpose is to penetrate the structural material and create a neutronic field which is not removed by scouring agents or dry cleaning fluids. These neutronic materials reject affiliation with the protons. Since the protons are of a 2,000 atomic weight against the electron of one, they are avidly seeking a reunion with the electrons. The neutronic materials incorporated prevent this liaison and hence we have minimized the static charge. As a matter of fact, materials treated will reject rather than attract another material containing an excess of protons.

"There are many methods of computing electronic discharges or developed charges but they are all based on an accelerated friction medium. None, as far as we can learn, are capable of computing various materials and varied speeds to arrive at any standardization. All materials tested must be frictionized to release the lambent static inherent in the metal or materials tested. That lambent charge was produced in the manufacture of the prime material. Its content is inexhaustible as long as there are either electrons or protons available for the transfer. As a matter of fact, nature wedded the protons and electrons in conjugal intimacy. When this family relationship is broken, each forever seeks its mate. Since the protons are so much heavier than the electrons, of course they are looking for the 2,000 electrons and that is the basis of this static electricity."

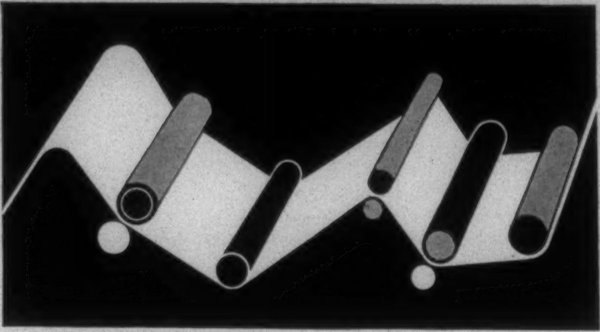
Select New 'E' Pennant For Defense Work

The Defense Production Awards Council has selected its "E" pennant and buttons which it will present military contractors winning the newly-reinstituted "E" awards. The two-tailed pennant for use by all services has a white border and blue background. In its center is a large red "E" with white border. Above the "E" in a semicircle is the word "Defense" in yellow; below the "E" is a yellow half-wreath. Six stars are in a horizontal row to the left and right of the "E," three to either side. Buttons and pins which will be awarder employees of the contractors judged deserving of the "E" will carry the center motif of the pennant.

Vinyl-Coated Fabric Output At New High

The manufacturers of vinyl-coated fabrics registered their biggest year in 1952, according to year-end figures released recently by the Plastic Coatings & Film Association. Shipments of vinyl-coated fabrics showed a gain of 13.4 per cent The 1952 total for plastic-coated fabrics was 45,706,722 linear yards compared to shipments in 1951 of 40,294,656 yards, an increase of 5,412,066 linear yards. These figures are based on reports from P.C.F.A. members and co-operating companies which represent a substantial majority of the nation's output of plastic-coated fabrics.

In releasing the year's statistics, S. Ernest Kulp of the Masland Duraleather Co., president of the P.C.F.A., pointed out that the high 1952 volume reflected steady business



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throughout the year capped by a strong fourth quarter. In the case of vinyl-coated fabrics, he said, the December volume was the highest ever recorded by that section of the industry.

Of the 45,706,722 linear yards of vinyl-coated fabrics shipped during 1952, 38,847,911 yards were heavy-weight fabrics (based on weight of finished goods, coating plus cloth, over ten ounces per square yard). In 1951, shipments of heavy-weight coated fabric totaled 32,578,899 yards. Light-weight coated fabrics (ten ounces and under per square yard finished weight) accounted for 4,201,018 yards in 1952 as against 5,171,565 yards in 1951. A total of 2,657,793 linear yards of custom coated materials were shipped in 1952 compared to 2,544,192 yards in 1951.

Make Leno Weaves Without Use Of Doups

Another new device for the improvement of textile machinery has been developed through research in the Clemson (S. C.) College School of Textiles, according to Dr. Hugh M. Brown, dean of the school and head of the research program. This device produces leno weaves without the use of doups. The arrangement is worked entirely from a dobby head which makes it possible to intermix, pick by pick, plain weave, ordinary leno, full-turn leno or even more than full-turn leno.

The leno action is accomplished by running each pair of warp ends through holes in small pinion gears mounted in a bar behind the harnesses. On each pick the gears are rotated the required number of half turns for the leno desired and stopped with each pair of ends separated horizontally so that the right-hand end in every pair may be either raised or lowered by one special harness, while the left-hand end of each pair may be given the opposite motion by another similar harness.

The rack that rotates the pinions may be operated from two dobby levers and the intermixing sequence set up on the pattern chain. Considerable cross striping effect can be had by intermixing picks of plain weaving, ordinary and full-turn leno. The system works well on warp end spacings down to one-fourth inch and is especially valuable for locking a weave having very widely spaced picks.

Size Curbs Water-Spotting On Taffetas

Water-spotting on loom-finished taffetas has been eliminated successfully with the introduction of Stymer LF, a new, durable size for solution-dyed filament acetate, Monsanto Chemical Co. announced recently. Developed at the textile research laboratories of Monsanto's Merrimac Division, Stymer LF has been tested and proven in the mills. Richard T. Clark, manager of the textile chemicals department, reported that the new chemical was not only non-spotting but also was easy to handle. It demonstrated excellent operating performance characteristics and contributed to durability of hand.

Stymer LF is a resin made soluble by ammonium hydroxide. Mill tests demonstrated the product's effectiveness in quantities similar to those recommended for the warp size, Stymer S. Ammonium hydroxide should be added in amounts approximating 12 per cent of the new size, Mr. Clark pointed out. The addition of suitable lubricants or softeners also is recommended.

"Stymer LF was developed," Mr. Clark said, "in order to take full advantage of loom-finished fabrics woven from solution-dyed yarns. These advantages could not be enjoyed using conventional sizes. Conventional sizes are water soluble and wash off loom-finished fabrics when the latter come in contact with water. A raindrop, for example, would cause a spot that could not be removed by dry cleaning. Stymer LF is a durable size, eliminating the water-spotting hazard and giving the fabric a crisp, marketable hand. In effect it performs two services: protecting yarns in weaving and providing a durable finish for dependable consumer service."

Successful formulas used in mill runs include: 46 pounds of Stymer LF, 5½ pounds of ammonium hydroxide 26° Baume, and five pounds of softener. The finished mix totaled 100 gallons. Another mill was successful with 50 pounds of Stymer LF, six pounds of ammonium hydroxide 26° Bme., and seven pounds of softener for a 100-gallon mix, Mr. Clark said.

To mix, Mr. Clark recommended: (1) Draw two-thirds of water to be used. (2) Heat to 160° F., then add ammonium hydroxide. (3) Start agitator and pour in Stymer LF. (4) Cook for 30 minutes at 160° F. (5) Dilute softener with hot water and add to mix. (6) Dilute to finished volume and store at temperature used in size box.

Mr. Clark said that mills found operations improved in some instances by increasing temperatures of the first two cans to as high as 210° F., and running the rest of the cans at normal temperature. He warned that cans should be raised to proper temperatures before running the slasher at faster than the slow speed. He also reported speeds of 25-35 yards a minute and bare rubber rolls with a 20-60 durometer reading and 900-1,200 pounds quetch pressure.

Textile Scholarships Established At College

Three new scholarships in textile manufacturing recently have been established in the School of Textiles at North Carolina State College, Dean Malcolm E. Campbell announced recently. The second Euvaldo Lodi scholarship, awarded to the outstanding graduate of the school of chemical and textile engineering of Rio De Janeiro, Brazil, has been sponsored by Draper Corp., Saco-Lowell Shops, Whitin Machine Works, and Crompton and Knowles Loom Works. The scholarship, awarded for a two-year period, is valued at $1,750. The award was named for Euvaldo Lodi, president of the Brazilian Confederation of Industries.

Two four-year scholarships for graduates of Haleyville (Ga.) High School have been established by Holeproof Hosiery Co. The scholarship will pay the major part of all expenses of the students selected for the four-year textile course at N. C. State College.

A $400 Keever Scholarship Award has been established by the Keever Starch Co., Columbus, Ohio, to be awarded to an outstanding student at the School of Textiles, N. C. State College.

Chattanooga Yarn Association Outing Slated

The 1953 outing of the Chattanooga (Tenn.) Yarn Association has been scheduled for June 18 and 19 at the Lookout Mountain Hotel, near Chattanooga, according to an announcement by R. W. Boyd, secretary-treasurer. The party will consist of a 36-hole handicap golf tournament, a skeet shoot and other entertainment features. A banquet on Friday night, June 19, will conclude the outing.

Injury Rate Takes Drop In 1952

Thirty-three textile plants compiled perfect records during the 1952 safety contest sponsored by the National Safety Council of America. A total of 180 plants completed the contest. According to the safety council the total number of manhours worked was 273,248,000, an eight per cent decrease from the 1951 total. Injuries reported during the 1952 contest totaled 1,607, 19 per cent less than the number reported in 1951. The per cent decrease in the final rate compared with 1951 was 12 per cent.

The first three winners in each group are listed below: Division I—Group A, Aragon Baldwin Mills Division of J. P. Stevens & Co., Whitmire, S. C.; Tallassee (Ala.) Mills, a unit of Mt. Vernon-Woodberry Mills Inc.; and Forstmann Woolen Co., Passaic, N. J. Group B—Arial (S. C.) Plant of Alice Mfg. Co.; Johnson & Johnson, Chicago, Ill.; and Industrial Rayon Corp., Covington, Va. Group C—Coats & Clark Inc., Thomasville, Ga.; Newport Textile Laboratory of E. I. du Pont de Nemours & Co.; and main office of American & Efird Mills Inc.

Division II—Group A, Simpsonville (S. C.) Plant of Woodside Mills; Bevelle Mill of Avondale Mills, Sylacauga, Ala.; and Mills Mill, Woodruff, S. C. Group B—Forstmann Woolen Co. (worsted mill); Forstmann Woolen Co. (finishing plant); Celanese Corp. of America, Staunton, Va. Group C—Celanese Lanese Corp. of Celanese Corp. of America; Nelson Plant of American & Efird Mills; and Bridgewater, Va., unit of Celanese.

Alabama's Textile Industry Cited Cited In Ad

The textile industry of Alabama and of the South, in general, is prominently featured in a unique four-page advertisement—printed in metallic gold—which appears in the March issue of *Fortune*. Created by the Roland G. E. Ullman Organization Inc. of Philadelphia for one of its clients, the Daniel Construction Co. of Greenville, S. C., and Birmingham, Ala., the advertisement is headed "These Plants Have Struck Gold in Alabama," and features the rapid post-war expansion of Alabama's industry. Pointing to specific industrial installations that are a part of this growth, it singles out the Chemstrand Corp.'s new plant at Decatur, Ala., and the recently expanded Beaunit Mills plant at Coosa Pines, Ala. Part of a continuing series prepared for the Daniel Construction Co. by the Roland G. E. Ullman Organization Inc., this advertisement will be followed by others featuring textile installations in other Southern states.

Fabrics Used In A-Bomb Test

Practically all types of fabrics used in apparel were utilized in the March 17 atomic bomb blast near Las Vegas, Nev., and civil defense experts are now seeking to determine which best withstands the terrific heat created in such a blast. Fifty department store mannequins—wearing all manner of clothing—were placed in the two houses and a number of the automobiles which were used in the test. Charles W. Dorn of New York, director of the J. C. Penney Research Laboratories, supervised the fabric phase of the A-bomb test.

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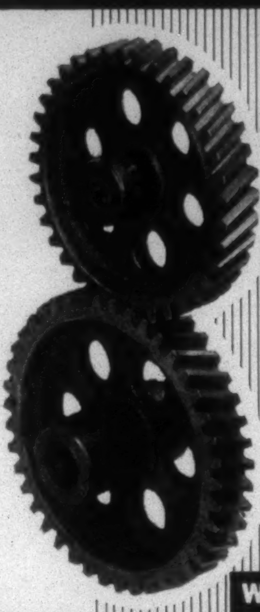

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S.T.A. Division Programs & Convention Plans

ACTIVITIES scheduled thus far for the first half of 1953 by the Southern Textile Association, the organization of textile mill supervisory management in the Carolinas, Tennessee and Virginia, include three divisional meetings of a technical nature this month and during April as well as the annual convention to be held June 18-19-20 at Mayview Manor, Blowing Rock, N. C.

The technical meetings are scheduled as follows: Eastern Carolina Division, Saturday, March 28 at 10 a.m., in the North Carolina State College School of Textiles auditorium, Raleigh; South Carolina Division, Saturday, April 4 at 10:30 a.m., in the ballroom of the Cleveland Hotel, Spartanburg; and Northern North Carolina-Virginia Division, Saturday, April 25 at 10 a.m., in the Fieldale (Va.) Y.M.C.A. Building.

Eastern Carolina Division

Eastern Carolina Division Chairman S. G. Riley Jr., superintendent of Pilot Mills at Raleigh, has outlined a number of discussion questions to be taken up at the March 28 meeting. Under "Carding," (1) What have you done to reduce or control neps? (a) fast licker-in speed; give speed; give settings; give nep count and waste; give changes in setting and speed which have been made (b) grinding and setting cycle; frequency that cards are ground; frequency that cards are set; whether or not cards are set after each grind. (2) What experience have you had on new or high-speed drawing? (a) give type of rolls (b) weight of sliver (c) speed in feet per minute (d) give variation. (3) Give your experience on non-oiled or non-friction type top rolls (a) drawing (b) speeders. (4) What experience have you had with the Pneumastop electric eye stop motion and waste collector?

Under "Spinning," (1) What experience have you had with non-friction top rolls? (a) do you like them? (b) ball or roller bearing rolls? (c) nylon rolls? (d) nylon saddles? (c) others. (2) How do you prevent lumps under long-draft aprons? (3) What experience have you had with under-frame cleaners? (4) What is your winding speed on Barber-Colman spoolers? (a) give yarn number (b) give type of wind (c) give percentage of reties.

Under "Slashing," (1) What is your experience in slashing wet warps? (2) Have you used pre-driers on wet warps? (3) What system do you use creeling and doffing slashers? (4) What type of squeeze rolls do you use? (a) rubber-covered (b) yarn-wound (c) blanket-covered. (5) How do you cover the yarn-wound rolls starting at the bare roll? (a) give yarns used and wraps of each (b) daily winding routine (c) how large do you fill the roll before it is cut off and started over? (6) Have you tried the new-type blankets? (a) part-nylon (b) treated wool; give yarn number and ends in warp; speed of slasher; cost to start roll; daily cost.

Under "Weaving," (1) What experience have you had with metallized take-up rolls? (a) give method of application (b) give approximate cost (c) what trouble or disadvantage has been found? (2) How do you control kinky filling? Have you changed the reed to stop kinks? (3) Give your method of cleaning reeds and harness, both in use and in storage. (4) Explain your system for controlling weaving seconds of the following types: broken picks, jerking in, mispicks, thick places, skipping, wrong filling, uneven, thin places.

South Carolina Division

A discussion of new opening machines which have been developed by several firms will be a feature of the South Carolina Division meeting April 4, according to J. A. Chapman Jr., chairman, who is manager of Riverdale Mills at Enoree. Three machines described at the recent Cotton Research Clinic and which now are the subject of considerable interest among mill men, will be discussed. A. P. Aldrich of Aldrich Machine Works, Greenwood, S. C., will discuss the Super Jet cleaner; the S.R.R.L. cotton opener will be discussed by Ralph A. Rusca of the Southern Regional Research Laboratory at New Orleans; and the Shirley opener will be discussed by F. E. Bozeman of Charlotte, N. C., Southern agent for Atkinson, Haserick & Co.

A "Make-Do Forum" discussion of how to make supplies last longer in the mill will feature panel participants J. T. Chalmers, superintendent of Orr Mills, Anderson; W. M. Allison, superintendent of Spartan Mills, Startex; Carl Frazen, master mechanic at Joanna Cotton Mills, Joanna; J. C. Godfrey, superintendent of Calhoun Mills, Calhoun Falls; and E. L. Cantrell, superintendent of Inman Mills, Inman. The meeting will be concluded with a nominating report and election of a new general chairman to succeed Mr. Chapman.

Northern N. C.-Va. Division

Dr. L. H. Hance, president-elect of the Institute of Textile Technology at Charlottesville, Va., will be the principal speaker on the Northern North Carolina-Virginia Division meeting at Fieldale April 25. His subject will be "Research in Textiles," according to Howard Barton of Filedcrest Mills, Spray, N. C., who is this year's divisional chairman. Group technical discussions will be led by B. J. Ballard, assistant superintendent of Highland Cotton Mills, High Point, N. C. (carding); Wilbur Honeycutt of Cone Mills Corp., Greensboro, N. C. (spinning); M. Zonnenberg of Foxel, the Netherlands (slashing); and Langdon Joslin, superintendent of weaving maintenance for Dan River Mills, Danville, Va. (weaving). Following the meeting, luncheon will be served by Fieldcrest Mills at the nearby Fieldale school building.

Blowing Rock Convention

The annual Southern Textile Association convention at Blowing Rock this June will follow, in general, the usual pattern of an opening buffet supper on Thursday evening, followed by entertainment; first business session Friday morning; golf tournament and other recreation Friday afternoon; reception given by the Associate Members Division, banquet and more entertainment Friday night; and final business session Saturday morning. S.T.A. President

David A. Purcell, superintendent of the Fieldcrest Mills blanket plant at Draper, N. C., has announced a list of three speakers who have accepted invitations to address the business sessions: Congressman Charles Raper Jonas of the Tenth North Carolina District; Frank Leslie of Leslie & Co., New York City, who is president of Clinchfield Mfg. Co. at Marion, N. C., and James L. Palmer of Chicago, president of Marshall Field Co.

As of March 15, approximately 80 mill executives had reserved accommodations at the headquarters hotel, Mayview Manor, for the annual S.T.A. convention. Their rooms were secured with the use of official reservation blanks sent to them late in February under a system set up by the S.T.A. board of governors whereby mill men had priority on room reservations during March. Mailing of convention announcements and reservation forms for associate members (representatives of machinery and supply firms) was scheduled for March 25 by the S.T.A. board, and the associate members will have priority on rooms during the month of April.

Improvements In Cotton Varieties Cited

Cotton produced in the United States today is strikingly superior in two important qualities—fiber length and fiber strength—to that grown only a decade ago, say plant scientists of the U. S. Department of Agriculture. The improved fibers make stronger, more easily processed yarns and fabrics. This information comes from a survey by J. E. Hite, cotton agronomist for the Bureau of Plant Industry, Soils, and Agricultural Engineering, in which he compared the two fiber properties of the commercial cottons most widely grown in 1939-41 with those of 1949-51.

Mr. Hite chose 1939-41 as the earliest three-year period in which newly devised instruments were used to make rapid determinations of fiber qualities in small amounts of cotton from the breeding plots. In previous research scientists had established the importance of fiber length and fiber strength in the spinning performance of a cotton and had shown these are inherited. Cotton breeders use fiber length and strength as a guide in making selections and crosses in varietal improvement.

The survey shows that new varieties with increased fiber length and fiber strength are being grown across the cotton belt. The average length of fibers (as measured on a Fibrograph) of nearly 12 million bales produced in the first period was .98-inch. The average index of fiber strength, as indicated on a Pressley strength tester, was 6.78. Ten years later the average fiber length of nearly 14 million bales was 1.04 inches and the index of average fiber strength was 7.23. The plant scientists see the ten-year gains as only the beginning of cotton fiber improvement that can be accomplished through research.

Varietal improvement has brought notable gains in fiber length in all of the cottons now widely grown in the South and Southeast. The Deltapine varieties, which accounted for more than three million bales in each of the survey periods, showed an increase in fiber length from 1.02 inches for Deltapine 11 and 12 (1939-41) to 1.07 for Deltapine 14 and 15 (1949-51). During the period fiber strength was increased from 6.84 to 7.24.

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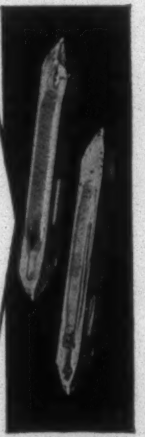

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of 8.00 as compared with 6.54 in Acala P18c which it replaced. There also has been a small gain in fiber length—1.11 as compared with 1.10 inches in the variety grown ten years ago.

Improvements in other widely grown varieties include increases in (1) fiber length from .80 to .86-inch for Hibred, .91 to .96 for Mebane; and from .94 to .96 for Rowden; and (2) fiber strength from 6.61 to 6.99 for Hibred, 5.99 to 6.36 for Mebane, and 7.02 to 7.72 for Rowden.

Percentagewise the biggest gains in fiber length have been found in cottons grown in Alabama (12.8 per cent); Georgia (10.4); Missouri (9.3); North Carolina and Arkansas (8.2); and Louisiana (8.1). And the most marked advances in fiber strength are in cottons grown in California (22.3 per cent); Oklahoma (9.63); Arizona (8.0); Texas (8.8); and New Mexico (7.6).

Many improved varieties of cotton in wide use today were either just being introduced or were still in the breeders' plots ten years ago. Among these are Empire which produced nearly a half-million bales annually from 1949 to 1951 with an average fiber length of 1.08 inches and a fiber strength of 7.34 and Coker 100W, which accounted for nearly two million bales annually with an average fiber length of 1.06, and fiber strength of 7.06.

U. S., European Cotton Leaders To Confer

Representatives of the National Cotton Council will meet with cotton textile leaders in Europe during April and May to lay plans for cotton promotion programs designed to increase cotton consumption in West European areas, Harold A. Young, council president, announced recently. Ed Lipscomb, council sales promotion director, and Richard T. Alexander, sales promotion staff member, will confer with representatives from England, France, The Netherlands, Sweden, Belgium, Denmark, Norway, and West Germany on cotton promotion plans. A meeting with Italian cotton leaders is still tentative.

"The European conferences are the outgrowth of the International Cotton Textile Conference at Buxton, England, last September, when Mr. Lipscomb presented the council's sales promotion program before cotton textile leaders from all over the world," Mr. Young said. "Since the Buxton meeting, a central cotton textile promotion committee has been formed in Western Europe. This group has requested that the council assist the individual member countries in making plans for their promotion activity and in adapting phases of the council's program to their local needs."

The council sales promotion officials will meet first with representatives of the British Cotton Board in London on April 9-11. Among Cotton Board staff members attending the conference will be John Hardaker, James Broatch, Hugh Lloyd, and Miss Leila Danbury. Mr. Lipscomb and Mr. Alexander will confer again with Sir Raymond Streat, chairman of the board, and other British representatives in May.

The initial meeting on the Continent will take place in Paris April 13-14 under sponsorship of the Commission Internationale Provisoire d'Etudes Pour le Coton, headed by Bernard Gaujal of the French Cotton Syndicate. Though plans for cotton promotion in France will be discussed during the sessions, representatives from other countries will attend to arrange for individual conferences in their nations. Among French representatives participating in the conference will be Jean Kowachiche of the Commission de Control des Achats de Coton; and members of the Cotton Syndicate including Robert Trocme, president; Pierre de Calan, executive vice-president; R. A. de la Beaumelle, and Marcel Fremaux.

Cotton leaders from other countries attending the Paris meeting to determine dates for conferences in their own countries will include Dr. W. T. Kroese, president, and J. A. Panhuyzen, secretary and director, Netherlands Cotton, Rayon and Linen Industries; Nils Karrlander, managing director of the Swedish Cotton Manufacturers Association; A. Lannoy, secretary of the Belgian National Association of Cotton Weavers; and Willy Kohler, executive head of the German spotton spinners and weavers group. Giorgio Casoni of the Italian Cotton Association also is expected to attend the meeting to discuss the possibility of a cotton promotion conference in Italy.

"At the international conference in Buxton, the American delegation clearly stated that the only effective way to broaden the markets for cotton products is to stimulate demand on the part of the individual consumer," Mr. Lipscomb said. "It has been most encouraging to see the response to this philosophy on the part of the Western European countries. In virtually every case they are placing new emphasis on the importance of selling cotton products to the consumer.

"Naturally the programs developed will vary from country to country," he said. "They must be based on the country's resources, its particular needs, and other individual factors. Our job will be that of assisting them in adapting to their own uses the sales principles and projects successfully used by the American cotton industry in the United States."

City-Industry Co-operation Builds School

A school with ceilings of acoustical tile, fluorescent lighting for dark days, germicidal lamps, a lavatory in every classroom and a music room as large as an ordinary five-room house has been completed at LaGrange, Ga., as an outstanding example of city-industry co-operation. The building, said to be one of the best equipped in the country, was erected at a cost of $480,646 and furnished and equipped at an additional cost of $73,000. Funds for construction and equipment were provided jointly by the city of LaGrange and Callaway organizations. Callaway Mills and the Callaway Educational Association donated $290,017 for the project, and the Callaway Community Foundation gave the building site.

Known as Unity School, it is a public institution for elementary students and is located in the Callaway Mills Co. community at LaGrange. The building, which represents a striking advance over many outmoded and cramped school facilities in Georgia, contains nearly an acre of floor space. With a front entrance of Georgian design, the structure is built of brick with reinforced concrete and has concrete floors and roof to make it fireproof.

The ten classrooms all are located on one of its four levels. Other levels contain a recreation and audio-visual room, library and art room, and auditorium, stage, dressing room, music room, cafeteria, private dining room and kitchen.

An auditorium, which seats 384 persons, is furnished with comfortable seats in rust velour with green leather backs that match velvet hangings at the windows and the curtains on the stage. Dressing rooms and a modern stage lighting system permit a wide variety of entertainment on the stage. The music room, on the same level as the auditorium, is built with a tiered floor. A recreation room on the ground floor contains 4,000 square feet of floor space. In addition to regular art equipment, the art room has an electric kiln and a potter's wheel for teaching ceramics. In the rest rooms, the mirrors have been placed at various heights for the convenience of different age groups. The teachers haven't been neglected, either. One of the most attractive spots in the building is a teachers' lounge, gaily decorated and furnished with comfortable sofa and chairs.

Another modern new school, also being built in LaGrange at a cost of about $1,500,000, will be opened next Fall. These projects are being cited as typical examples of how Alabama's textile industry seeks to serve the communities in which mills are located.

A.S.M.E. Textile Division To Meet May 22

The textile engineering division of the American Society of Mechanical Engineers will hold its Spring meeting in Boston, Mass., Friday, May 22, at the Sheraton Plaza Hotel. The theme of the meeting will be "Engineering Problems Involved in Handling Synthetics." An all-day session is scheduled, with two papers in the morning, luncheon with a speaker, and two papers in the afternoon. An excellent panel of speakers will be presented.

Develop Process To Flameproof Cotton Fabrics

The U. S. Department of Agriculture announced recently that its chemical research has developed improved flameproofed cotton fabrics, using a chemical known as THPC, or tetrakis (hydroxmyethyl) phosphonium chloride.

THPC applied to cotton fabrics by conventional methods of processing gave these fabrics excellent flameproofing qualities, in research at the Bureau of Agricultural and Industrial Chemistry's Southern Regional Research Laboratory in New Orleans. Cloth treated by the THPC process should be especially useful for curtains, draperies, upholstery, bedding, and other household items. Wilson A. Reeves and John D. Guthrie of the laboratory's cotton chemical processing division developed the new process.

The chemically-treated fabrics retain flameproofness after more than 15 launderings—a very severe test for a flameproofing finish. Two additional advantages of the new fabrics are good wrinkle resistance and absence of afterglows as the charred cloth does not continue to smolder after the source of flame has been removed.

Dr. G. E. Hilbert, bureau chief, says the THPC process is one of several flameproofing treatments being investigated in co-operative work with the Army Quarter Corps. to develop a flameproof fabric suitable for military clothing. Two of these chemical processes are described in the bureau's annual report for 1952.

The new flameproofing finish is applied on standard textile equipment in a process similar to that used in creaseproofing cloth by well-known commercial methods. The fabric is treated with a solution containing the proper combination of chemicals, dried, cured for a few minutes at a temperature of 285° F., and washed to remove unused chemicals.

Two chemicals used in this new flameproofing process are THPC and urea, a common industrial chemical. Another

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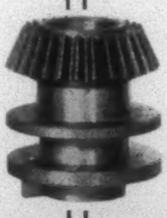

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is methylolmelamine, a substance widely employed to make fabrics creaseproof. The process should cost only slightly more than some of the less permanent flameproofing processes now in commercial use, Dr. Hilbert said. THPC is made from inexpensive chemicals by a technique feasible for commercial production. Limited quantities are available for experimental purposes from at least one company. Information on flameproofing investigations and small samples of fabric treated by the THPC process may be obtained by writing Dr. C. H. Fisher, Director, Southern Regional Research Laboratory, New Orleans, La.

Cotton Broad Woven Output Listed

Cotton broad woven goods production totaled 2,540 million linear yards in the fourth quarter of 1952, according to the Bureau of the Census, Department of Commerce. Increases were shown for all items except napped fabrics which declined five per cent from the third quarter output. No change was shown in the total output of tire and cord fabric for the quarter. An increase of two million pounds in the production of synthetic tire cord and fabric was offset by a further drop in cotton tire cord and fabric output.

Of the total of 2,540 million yards of cotton and chiefly cotton fabrics, 13 million yards were produced on woolen and worsted looms. Spinning spindles in place and active Dec. 27, 1952, in mills producing yarn for their own use, totaled 16,269,203. Of these, 15,306,578 were active on the first shift, 14,982,006 on the second and 12,165,967 on the third shift. Looms in place and active on the same date totaled 394,895—362,111 on the first shift, 355,637 on the second and 279,881 on the third.

Spinners Sold Ahead For Two Months

A sustained rate of shipments during February cut into carded cotton sales yarn order backlogs and left spinners sold ahead about two months, the Textile Information Service reports. Unfilled orders on spinners' books on Feb. 28 amounted to 8.36 weeks' production and were 8.82 times stocks on hand. This compares with a backlog on Jan. 31 equal to 8.71 weeks' output and 9.05 times stocks, and with a backlog on March 1 a year ago equivalent to ten weeks' production and 6.68 times stocks on hand.

Total yarn in stock at the end of February, including yarn made for future deliveries against unfilled orders, amounted to 94.9 per cent of a week's production, compared with inventories on Jan. 31 equal to 96.1 per cent of a week's output, and stocks on March 1 last year amounting to 1.495 weeks' production.

According to statistics of the Carded Yarn Association covering reports from approximately 1.4 million member spindles, production in the week ended Feb. 28 consisted of 32.7 per cent knitting yarn, 50.9 per cent weaving yarn,

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and 16.4 per cent all others. On Jan. 31 the percentages were 34.3, 49.0 and 16.7, respectively, and on March 1, 1952, they were 26.7, 57.3 and 16.

Practical Forms Of Revised Cotton Standards

The U. S. Department of Agriculture announces that practical forms of the revised cotton standards that become effective Aug. 15, 1953, will be available for purchase after the Universal Cotton Standards Conference to be held in Washington May 13-16. The practical forms will include 12-sample official boxes and six-sample guide boxes of all grades of white and tinged cotton contained in the revised standards, excepting the grades of good middling white and good middling tinged (which will be descriptive grades).

Revision of the grade standards of American upland cotton was announced by the department in August 1952 following public hearings and approval by cotton associations in nine cotton importing countries which are signatories to the Universal Cotton Standards Agreements. These standards are known as Universal Standards for American Cotton.

The recent announcement follows department approval of proposed amendments of Cotton Standards Act regulations governing the availability and prices of practical forms of the revised standards. By legislative requirement, these proposals must be announced before the changes go into effect. The 12-sample boxes would cost domestic purchasers $10 per box f.o.b. Washington, D. C., and foreign purchasers $12 per box delivered. (Currently, the cost is $5 a box domestic, and $6.25 foreign.) The six-sample boxes would cost domestic purchasers $5 a box f.o.b. Washington, D. C., and foreign purchasers $6.50 a box delivered.

The department also announced a higher schedule of proposed prices for the following named standards, to cover more nearly the cost of preparing and packaging these standards:

	Domestic purchase, f.o.b. Washington, D. C.	Foreign purchase, delivered
(1) Standards for grade of American Egyptian cotton	$10 (currently $3)	$12.00 (currently $4)
(2) Standards for grade of Sea Island cotton	$10 (currently $5)	$12 (currently $6.25)
(3) Tentative standards for preparation of upland long-staple cotton	$5 (currently $3)	$6.50 (currently $4)
(4) Standards for length of staple	$2 (currently $1)	$2.50 (currently $1.25)

The Department of Commerce has a national committee on wood utilization which in turn has a subcommittee on Uses for Secondhand Boxes and Odd Pieces of Lumber. That's organization plus!—*Savannah* (Ga.) *Morning News*.

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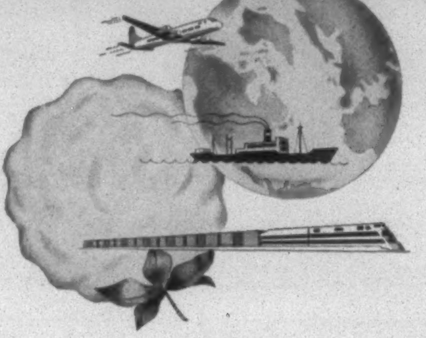

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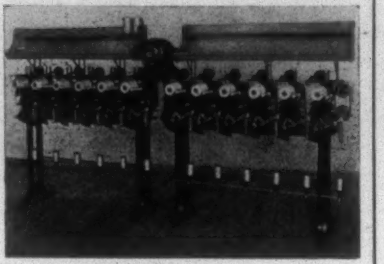

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Before Closing Down

— TEXTILE INDUSTRY HAPPENINGS AS THIS ISSUE WENT TO PRESS —

PERSONAL NEWS

W. Earl Crenshaw has resigned as general superintendent of carding and spinning for the Springs Cotton Mills plants at Fort Mill, Chester, Lancaster and Kershaw, S. C. Mr. Crenshaw's home is at 2231 Selwyn Avenue, Charlotte, N. C.

Pat Warren has been named manager of the Hartwell, Ga., plant of Textron Southern, according to an announcement by R. M. Cushman of Anderson, S. C., executive vice-president. Mr. Warren was formerly group manager of the Bristol and Johnston City, Tenn., operations of Burlington Mills Corp. The Textron plant at Hartwell is equipped with 800 new looms, with complementary throwing equipment, operating on fancy filament fabrics for the dress and blouse trade.

G. W. Jameson, with Spartan Mills at Spartanburg, S. C., for the past six years, has been promoted to the position of overseer of weaving at Spartan Plant No. 2. He succeeds David H. Roberts, who, as noted, is now superintendent of Lydia Cotton Mills, Clinton, S. C. . . . Jake Delamar, who has been with Spartan since his graduation from North Carolina State College five years ago, has been promoted to Mr. Jameson's former position as general supervisor in charge of the second shift at Spartan No. 2, and Harry Barn has been promoted in turn to the position vacated by Mr. Delamar, second hand weaving.

Fred G. Gronemeyer has been named assistant manager of the Chemstrand Corp. nylon plant under construction near Pensacola, Fla. Mr. Gronemeyer has been associated with Chemstrand since May 1951 and has been chief engineer of the Chemstrand nylon plant since its inception. The plant is scheduled to come into production early in 1954.

Claude S. Morris of Salisbury, N. C., a vice-president of Cone Mills Corp., Greensboro, N. C., and for the past 20 years president of Salisbury Cotton Mills, a Cone subsidiary, is retiring April 1 after 50 years in the textile industry.

Frank Stubbings has resigned as manager of the Dublin, Va., finishing plant of Burlington Mills Corp. and reveals that he plans to open his own business in the near future. Mr. Stubbings, a 1927 graduate of Massachusetts Institute of Technology, states he hopes to locate headquarters for his company in the Pulaski, Va., area. . . . Eric Bell has succeeded Mr. Stubbings as manager at Dublin. Until recently Mr. Bell was manager of the Bur-Mil development finishing plant in Greensboro, N. C., as well as technical liaison staff assistant for the company's finishing division.

Robert Train of Bibb Mfg. Co., Macon, Ga., has been elected chairman of the cotton buyers division of the Cotton Manufacturers Association of Georgia. Mr. Train succeeds Hewlett Bagwell of Pacolet Mfg. Co., New Holland, Ga. . . . R. O. Simmons of Pepperell Mfg. Co., Lindale, was elected vice-chairman of the division and Frank L. Carter of Atlanta was re-elected secretary.

Brainard T. Webb has joined William Iselin & Co. Inc., New York, in an executive capacity. Prior to joining the Iselin organization Mr. Webb was president of Powdrell & Alexander Inc. of Danielson, Conn.

William M. Baker has been promoted from assistant treasurer to treasurer of Merrow Machine Co. of Hartford, Conn., manufacturer of industrial sewing machines. A graduate of Cornell University, Mr. Baker has been connected with the company since 1935, first in an engineering capacity and later as assistant treasurer.

William I. Hudson Jr., owner of William I. Hudson Jr. Co., Atlanta, Ga., is joining Muscogee Mfg. Co. of Columbus, Ga., in an executive capacity. Mr. Hudson is resigning as Southeastern representative for Muscogee Mfg. Co. and Reeves Bros. Inc. effective April 1. David Duncan, who has been connected with William I. Hudson Jr. Co. for several years, will succeed Mr. Hudson as Southeastern representative for Muscogee.

Donald L. Griswold on July 1 will be transferred to the head office of the Calco Chemical Division, American Cyanamid Co., at Bound Brook, N. J., as assistant to the manager of the dyestuff department. Since 1947 Mr. Griswold has been manager of the Calco Chemical Division, North American Cyanamid Ltd., in Canada. . . . J. R. Burkett will be transferred from the dyestuff sales department at Bound Brook to manage the business of the Calco Chemical Division at Montreal. Mr. Burkett has 18 years experience in various departments of the Calco organization.

F. Sadler Love, secretary-treasurer of the American Cotton Manufacturers Institute, has been elected to a two-year term as a director of the Charlotte (N. C.) Rotary Club. . . . A. A. Lindblom, secretary and assistant treasurer of Drayton Mills, Spartanburg, S. C., has been chosen to represent the Spartanburg Rotary Club at the 1953 convention of Rotary International to be held in May at Paris, France.

John J. Valter, who has over 25 years' experience in textile processing, has joined the Southern sales and service staff of Metro-Atlantic Inc. Mr. Valter previously has been associated with Belding, Heminway in New York in the converting department; Associated Dyeing & Printing Corp., Colt Division, Paterson, N. J., as a dyer; Fontaine Converting Works, Martinsville, Va., also in the dyeing department; North Carolina Finishing Co., Rayon Division, Salisbury, N. C., as superintendent of dyeing; Pacific Mills, Rayon Division, Lyman, S. C., as superintendent; and Riegel Textile Corp., Rayon Division, Ware Shoals, S. C., also as superintendent. Mr. Valter will work out of Metro's office at 1210 New Buncombe Road, Greenville, S. C., and will cover North Carolina and Virginia.

R. E. Henry, who retired as a vice-president of J. P. Stevens Co. Inc. in 1950, again this year will be chairman of the Greenville (S. C.) County Cancer Society fund campaign.

Tom G. Etheridge, for the past 3½ years employed at the Staunton, Va., plant of Celanese Corp. of America, has been transferred to the company's Southern sales office at Charlotte, N. C., and is now representing the company in Georgia and Alabama.

Myron S. Curtis, for the past 4½ years director of engineering for Warner & Swasey Co., Cleveland, Ohio, has been made a vice-president of the company. Mr. Curtis joined Warner & Swasey in 1940 and is credited with being largely responsible for development of the Warner & Swasey weaving machine. He was made director of engineering in 1948 and was named to the board of directors at that time.

Alex W. Bell, formerly vice-president and general manager of manufacturing, has been elected to the newly-created office of executive vice-president of American & Efird Mills Inc., Mount Holly, N. C. Mr. Bell has been succeeded in his former position by James H. Martin Jr., formerly general superintendent. Mr. Martin was elected to the board of directors as was R. D. Hall, prominent textile executive of Belmont, N. C. . . . E. H. Timanus was named an assistant vice-president of the parent company and plant manager of the spun fibers division at Lenoir, N. C., and Arthur G. Corkery was named an assistant vice-president in charge of the division's sales. Prior to the merger last Dec. 31 of Spun Fibers Inc. into the parent concern, Mr. Timanus was vice-president of this subsidiary and Mr. Corkery, of New York, was sales manager.

Paul Groover, executive vice-president of Pacific Mills, has been elected a director and a member of the company's executive committee.

Stuart McRae has resigned as superintendent of Gate City Yarns Inc., Atlanta, Ga., to accept a similar position at Tifton (Ga.) Cotton Mills.

B. G. Miller of Montgomery, Ala., is now overseer of carding at Quitman (Ga.) Mills Inc.

C. W. Gunter has been named head of the St. Louis, Mo., news service bureau of Fairchild Publications. A graduate of the School of Journalism of the University of North Carolina, Mr. Gunter since 1947 has been head of Fairchild's Charlotte, N. C., news bureau. He is secretary of the recently-organized Charlotte Textile Club.

Robert B. Hull has been named quality control manager at Firestone Textiles, Gastonia, N. C., succeeding Clyde E. Moss, recently promoted to assistant superintendent.

Earl Holt has joined the sales staff of Bryant Chemical Corp., North Quincy, Mass., and will represent the firm in North Carolina and Virginia, working out of the firm's Spartanburg, S. C., office.

John A. Reagan, sales promotion manager for Sonoco Products Co., Hartsville, S. C., was guest speaker at a recent luncheon meeting of the Charlotte (N. C.) Textile Club. Mr. Reagan discussed recent developments in textile cones, spools and tubes.

John M. Reeves of Reeves Bros. Inc. recently was elected vice-president of the Association of Cotton Textile Merchants of New York succeeding George M. Miller of Turner Halsey Co. All other officers of the association were re-elected.

Ray E. Chandler has been placed in charge of all production planning for Robbins Mills Inc. Mr. Chandler, who will be located at the central manufacturing headquarters of the company at Aberdeen, N. C., will be responsible for planning production in all of the firm's North Carolina plants, which are located in Aberdeen, Red Springs, Robbins, Raeford and Rocky Mount. Previously, he was in charge of planning for the suiting divisions of Aberdeen and Raeford. Mr. Chandler now will assume the remainder of the mills' production planning duties, previously handled by Arthur M. Spiro, who is now co-ordinating the manufacturing and merchandising policies of the company as administrative assistant to the executive vice-president.

Marvin L. Huckabee has joined A. E. Staley Mfg. Co., Decatur, Ill., corn and soybean processor, as a research chemist in the textile section of the research department. Mr. Huckabee, who was formerly employed by Arnold Hoffman & Co. Inc. at Charlotte, N. C., received his bachelor's degree in textile chemistry from Clemson (S. C.) College in 1933 and his master's in organic chemistry from the University of North Carolina in 1942.

J. Morton Curran Jr., president of Morton Curran & Co. Inc., New York, has been named president of Summerville (Ga.) Mfg. Co. Mr. Curran also continues as treasurer. . . . F. Somers Ritchie Jr., vice-president of Morton Curran, selling agent for the mill, was made secretary and a director. J. Lowell Pratt, president of A. S. Barnes & Co., was elected a director. L. A. Grinnan, formerly assistant secretary, and who has been connected with Summerville's New York treasurer's office, was named assistant treasurer. Norman J. Curran, who has been in the New York treasurer's office, was made assistant secretary.

Ola E. Fee has been elevated from vice-president and general manager to president of Montgomery & Crawford Co., Spartanburg, S. C. Other new officers elected at a recent meeting of the board of directors includes: W. P. Thomas, first vice-president and controller; Nolan H. Penland Sr., secretary and treasurer; W. M. Walker, vice-president; and Henry T. Bourne, former president, chairman of the board of directors.

W. C. Harris, formerly director of merchandising and sales, has been elected vice-president of merchandising and sales at Dan River Mills, Danville, Va. . . . Two new directors named to the Dan River board are William H. Barnhardt, president of Barnhardt Bros. Co. of Charlotte, N. C., and Robert O. Arnold, president of Covington (Ga.) Mills.

J. A. Neisler, secretary of Neisler Mills Inc., Kings Mountain, N. C., has been elected president of the Kings Mountain Country Club and J. H. Patterson, superintendent of Kings Mountain Mfg. Co., has been elected vice-president of the club.

Maurice A. Murray is a recent addition to the engineering staff of Page-Madden Co. Inc., Mineola, N. Y. Prior to joining Page-Madden Mr. Murray was for 12 years associated with American Lava Corp., Chattanooga, Tenn., in research, production control and new product development.

OBITUARIES

William G. Blair, 68, a member of the faculty at the Clemson (S. C.) College School of Textiles from 1936 until his retirement in September 1952, died March 17 after a brief illness. Mr. Blair also was at one time associated with Judson Mills at Greenville, S. C. Surviving are his wife, one son and two brothers.

John E. Hamilton, 73, president of Cotton Mill Machinery Corp. of Charlotte, N. C., which he founded in 1933, died March 18 at his home in Charlotte. Mr. Hamilton, before founding his own business, was associated with the Draper Corp. and Louisville (Ky.) Textile Co. Surviving are his wife, a son, two daughters and a sister.

George B. Haven, 81, retired professor of advanced machine design at Massachusetts Institute of Technology and the author of numerous works on textile research, died recently at his home in Gilford, N. H. When he retired in 1936 Mr. Haven had been with M.I.T. over 40 years and headed the textile research work there. His wife, a son and a daughter survive.

Charles L. Peirce, 79, treasurer of Jordan Mills Inc., Columbus, Ga., from 1933 until his retirement in 1950, died recently after an illness of several weeks. He is survived by his wife, three daughters and two brothers.

Harold Pratt, 62, of Pelham Woods, N. Y., died March 18 after an illness of several months. Mr. Pratt was manager of the export sales department of Southeastern Cottons Inc., cotton textile sales firm with which he had been since 1935. He was with Southeastern's Boston office from 1935 to 1937. In 1951-52 Mr. Pratt was president of the Textile Export Association of the United States and was for six years a member of the board of directors. Surviving are his wife and a daughter.

John K. Rittenhouse, former treasurer of the American Society for Testing Materials, died recently at the home of his son in Rochester, N. Y. Mr. Rittenhouse retired last April 15 after 43 years with the A.S.T.M. In addition to his son, he is survived by his wife and a daughter.

Morris Sayre, 69, president of Corn Industrial Research Foundation Inc. and honorary chairman of Corn Products Refining Co., died at Zonguldak, Turkey, of a heart attack on March 7. Mr. Sayre was in Turkey as a member of a group of businessmen delegated by Harold Stassen of the Mutual Security Agency to appraise the results of American aid. He had expected to return to the United States about the middle of March. He was president for several years of Corn Products Refining Co., was a former president of the National Association of Manufacturers, and was a director in a number of business, educational and philanthropic organizations. His home was in Montclair, N. J. He is survived by his wife and two sons.

William P. Smedley, assistant vice-president of the Duplan Corp. and manager of all throwing operations in the firm's plants in the North and South, died March 10 of a heart attack in his office at the Kingston, Pa., plant. Survivors include his wife, two sons, two daughters, three brothers and a sister.

Rush Spencer, 83, retired businessman of Gastonia, N. C., organizer of the former Ruby Cotton Mill in Gastonia and Pageland

(S. C.) Cotton Mill, died March 20 at his home in Gastonia. Surviving are his wife, a daughter and a son, a brother and a sister.

MILL NEWS

BESSEMER CITY, N. C.—Gambrill & Melville Mills Co. has ceased operations indefinitely, with only a skeleton crew being held on a temporary basis. No explanation for the work stoppage was given. The mill has operated continuously for 15½ years, utilizing about 15,104 spindles and 297 looms in the production of wide cotton sheeting. It is owned by William L. Todd of Wilmington, Del.

DOVER, N. H.—All machinery of the Sawyer Mill of American Woolen Co. is being removed. Most of the machinery is slated to be transferred to the company's plants in Winthrop, Me., and Tifton, Ga.

SANFORD, N. C.—Burlington Mills Corp. has abandoned plans for construction of a synthetic weaving plant here and has offered for sale a 113-acre tract it had acquired for that purpose.

ROCK HILL, S. C.—Clayton Every Rug Co. of Spartanburg, S. C., is expanding its operations to Rock Hill. The firm has leased three buildings containing about 40,000 square feet of floor space and will spin, dye and finish rugs, employing between 40 and 50 persons.

MANCHESTER, N. H.—It is reported that the Verney Corp. is planning to move its Manchester rayon weaving plant, or the major part thereof, to the South. Location of the new site has not been revealed, but it is believed to be in Georgia.

KINSTON, N. C.—The Du Pont Co.'s $40,000,000 plant for the manufacture of Dacron polyester fiber started production here March 23. The first of six production units went into operation at the plant built on a 635-acre tract along the Neuse River in the heart of this North Carolina tobacco country. The initial unit is producing Dacron in staple and tow forms. The five additional production units are expected to be in operation by the end of 1953, the textile fibers department announced. The production goal is an annual capacity of 35,000,000 pounds of staple and continuous filament Dacron fiber. Meanwhile, the department said that the experimental staple production unit for Dacron at Seaford, Del., is being shut down. However, production of continuous filament yarn will continue on a small experimental unit at Seaford until the new plant is ready to make this type yarn. W. E. Gladding, manager of the Kinston Plant, said the poundage of the first staple production line at Kinston would approximate that of the operations at Seaford. Seaford, site of Du Pont's first nylon plant, has been operating an experimental production line for manufacturing Dacron staple since last Fall. Mr. Gladding said the five additional production units at Kinston are still in varying stages of construction, with the completion dates for each not yet established.

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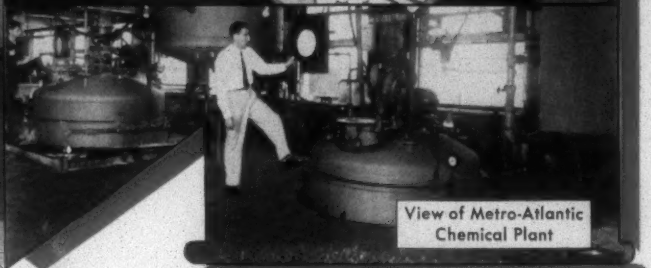

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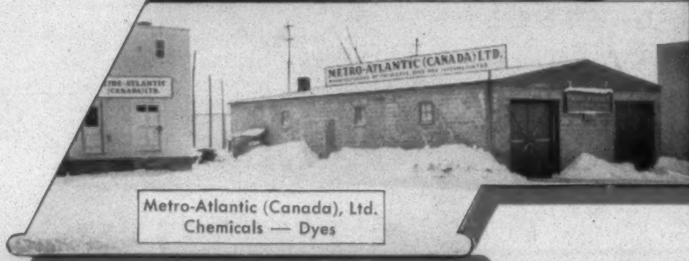

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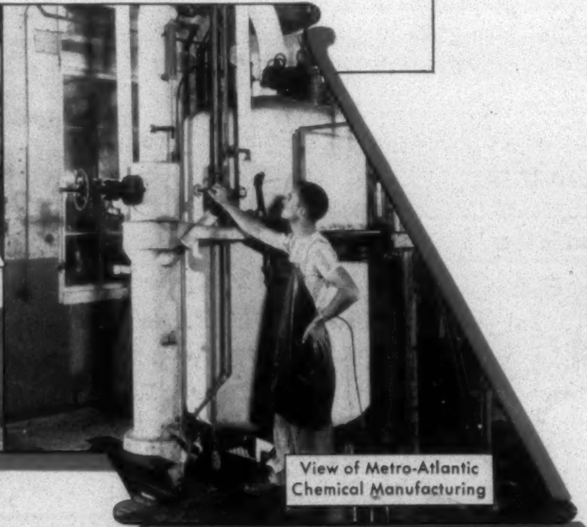

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